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Study of Automobile Exhaust Emissions in Consumer-Owned Vehicles, National Surveillance Program, 1970-Model Vehicles

Olson Labs, Inc, Dearborn, Mich

Prepared for

Environmental Protection Agency, Ann Arbor, Mich Office of Air Programs

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1970 - Model Vehicles

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Environmental Protection Agency
Office of Air Programs
2565 Plymouth Road
Ann Arbor, Michigan 48105

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ABSTRACT

Exhaust emission tests were conducted on 2101 typical consumer-owned 1970 model production light-duty vehicles. The vehicles were procured and tested in six different metropolitan areas; Kansas City, Houston, Los Angeles, Detroit, Denver, and Washington, D.C. The total number of vehicles from each manufacturer (AMC, Chrysler, Ford, GM, and Volkswagen) was proportioned to represent the manufacturer's portion of the total production for 1970. For each manufacturer, combinations of engine size and transmission type were proportioned according to sales as closely as possible. Each vehicle was tested after accumulating at least 4000 miles, using the standard Federal 7-mode, 7-cycle Cold Start test procedure, and the Clayton KEY MODE test procedure. Average vehicle mileage was 10601.

Emission levels measured in Denver (elevation 5,000 feet) were significantly different from the other five cities. The enrichening effect of altitude on carburetor metering, which tends to cause HC and CO to increase and NO_x to decrease, was evident in these tests. Therefore, results obtained in the other five cities are considered to be more representative of the nation-wide population of 1970 model vehicles.

Considering the all vehicle sample, excluding Denver, the average HC level was 2.83 gm/mile, which exceeds the Federal certification standard of 2.2 gm/mile. The average five-city CO level was 35.6 gm/mile, which also exceeds the certification standard of 23.0 gm/mile. The average five-city NO_x level was 4.68 gm/mile. There were no Federal or State regulations covering NO_x emissions in 1970.

City effects were statistically significant even when Denver was excluded. Average HC levels varied between the five cities from 2.46 (Los Angeles) to 3.08 (Detroit), average CO levels from 29.8 (Washington, D.C.) to 40.8 (Houston) and average NO_x levels from 4.27 (Detroit) to 5.04 (Los Angeles).

The differences in the average emission levels of individual manufacturers (again excluding Denver) were also statistically significant. Average HC levels ranged from 2.50 (American Motors) to 3.02 (Ford). Vehicles representing the bulk of 1970 production, Ford products, Chrysler products, and GM's Chevrolet make, all had relatively high HC levels that were not significantly different. Average CO levels for the five manufacturers ranged from 20.9 (VW) to 41.8 (Chrysler). Average NO_x levels ranged from 3.88 (VW) to 5.89 (Chrysler).

An attempt was made to predict Federal 7-mode composite concentration data from a linear function of KEY MODE data at idle, low speed cruise and high speed cruise. The derived equations were not, in general, good predictors of the actual Cold Start emission values.

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SECTION 1

INTRODUCTION

1.1 FOREWORD

Exhaust emission surveillance programs are administered by the Environmental Protection Agency to ascertain the effectiveness of Federal air pollution regulations by measuring the emissions from production vehicles. The program reported herein was conducted to measure the emission levels of 1970 models driven by the motoring public.

The Clean Air Act of 1963 - as amended in 1965 - set national standards for the control of air pollution from new motor vehicles beginning with the 1968 model year. Procedures for testing and certifying prototype 1970 model vehicles for compliance with Federal exhaust emission standards were published in the Federal Register 33 (108), June 4, 1968, Part II. These procedures required each manufacturer to build and test a specified number of prototype vehicles that would meet Federal emission standards before Certificates of Conformity

were issued to the manufacturer. They did not require that each vehicle produced meet the applicable standards. They did require that the average emission values from a sample of two or four emission-data vehicles of each displacement, depending on projected sales volume, be less than the standards when the values had been modified by a deterioration factor obtained from a fleet of four to twelve durability-data vehicles, representative of at least 70 percent of the manufacturer's engine displacement and transmission options. The standards for exhaust emissions applicable to "new light duty vehicles" were:

1) Hydrocarbons - 2.2 grams per vehicle mile.
2) Carbon monoxide - 23 grams per vehicle mile.
3) Oxides of nitrogen - no requirement.

Vehicles sold to the public were required to be the same, in all material respects, as the certified vehicles.

1.2 PURPOSE

The purpose of the contracted program was to gather exhaust emission data on typical 1970 model production vehicles in consumer use to determine whether or not the goals of the Clean Air Act are being achieved.

1.3 SCOPE

Tests were conducted on a pre-selected group of 1970 model vehicles chosen so as to represent normal production vehicles sold in the United States. The number of vehicles tested from each manufacturer was as follows:

Manufacturer	Number of Vehicles
General Motors	1008
Ford Motor Company	480
Chrysler Corporation	363
American Motors	129
Volkswagen	121
	2101

The test fleet was constructed so that the number of vehicles* from each manufacturer was in proportion to that manufacturer's production. For a given manufacturer (and each General Motors make), combinations of engine-size and transmission type were proportioned according to sales as closely as possible. For a given engine size, combinations of carburetor size and compression ratio were also proportioned according to projected sales.

* Light-duty vehicles as stipulated in 33 Federal Register 108, dated June 4, 1968.

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The total fleet was composed of six sub-fleets, each with approximately 350 vehicles proportioned as above, but procured and tested in different metropolitan areas:

Kansas City, Missouri
Houston, Texas
Los Angeles, California
Detroit, Michigan
Denver, Colorado
Washington, D.C.

A geographical distribution was necessary to determine whether exhaust emissions varied in different parts of the country due to such factors as climate, topography, and urban development. For example, humidity has a pronounced effect on the emission of nitrogen oxides. Altitude has a pronounced effect on carburetor metering which in turn affects emission levels (Denver is at an elevation of about 5,000 feet). Also, different patterns of driver usage and maintenance practices can affect emission levels.

Each vehicle was tested only once. It was a requirement that at least 4,000 miles be accumulated by the vehicle before the test. Most vehicles had accumulated about 10,000 miles at the time of the test. Each vehicle was cold start tested for unburned Hydrocarbons (HC), Carbon Monoxide (CO), and Oxides of Nitrogen (NO)

exhaust emissions by test procedures stipulated in 33 Federal Register 108, Part II, Sections 85.70 to 85.87 inclusive, as amended by 34 Federal Register 125. This test is known as the Federal 7-mode, 7-cycle Cold Start test.

After each cold start test a Clayton KEY MODE diagnostic test was performed. The KEY MODE test consisted of measuring exhaust emissions at steady state conditions for the engine idle mode and two cruise speed modes. In addition, measurements of basic ignition timing, dwell, and idle RPM were made. No adjustments were made, however.

The contract was awarded July 29, 1970. Actual testing was conducted in the six cities during the twelve month period from November 1970 to November 1971. The initial and final dates of testing in each city were:

	Initial	Final
Kansas City	12/16/70	10/25/71
Houston	1/12/71	10/22/71
Los Angeles	11/17/70	11/2 /71
Detroit	12/16/70	11/26/71
Denver	1/28/71	11/23/71
Washington,D.C.	5/17/71	7/15/71

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SECTION 2

TEST VEHICLES

2.1 TEST FLEET COMPOSITION

The structure of the test fleet according to vehicle make and distribution among cities is shown in Table 2-1. A more detailed breakdown of the fleet composition describing the classes of vehicles and the numbers of each within a make is presented as Table 2-2. Detailed information on each vehicle tested is shown in Appendix Tables A-1 through A-6 for the six cities.

In Tables 2-1 and 2-2 the two columns on the far right compare the actual fleet composition to the composition suggested by the Project Officer. The suggested composition was intended to represent the projected production of each manufacturer. It was arrived at from a combination of actual sales data on 1970 models and predicted sales of each engine-model combination (actual engine sales data were not available).

Some deviations from the suggested composition resulted from procurement difficulties discussed in Section 3.3.

It is believed that the minor deviations involved had no significant effect on the results of the study. The smallest sample subdivision used for analysis was a given make in one city. Table 2-1 shows that the number of vehicles of a given make was quite uniform from city to city, except in Washington D.C. The sample sizes of the makes affected in Washington, however, were large enough so that the deviations would not influence the means significantly.

Within each make, the engine-transmission-carburetor combinations were proportioned according to predicted sales. For some low-volume makes the correct proportioning of the suggested composition would permit no more than one or two vehicles in the total sample, making even distribution among cities impossible.

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TABLE 2-1

TEST FLEET STRUCTURE

Make	Kansas City	Houston	Los Angeles	Detroit	Denver	Wash-ington	All Cities Actual	All Cities Suggested
American	20	20	19	20	20	30	129	120
Chrysler	60	60	57	60	60	66	363	360
Ford	81	81	81	81	81	75	480	480
Chevrolet	95	89	92	91	90	77	534	532
Pontiac	24	26	29	27	28	23	157	156
Oldsmobile	24	22	22	23	22	20	133	132
Buick	23	24	23	23	23	24	140	139
Cadillac	5	8	9	7	8	7	44	49
Volkswagen	20	20	20	20	20	21	121	120
G.M. Total	171	169	175	171	171	151	1008	1008
Overall Total	352	350	352	352	352	343	2101	2088

Table 2-2. COMPOSITION OF TEST FLEET

MANUFACTURER	CLASS	CID[a]	CARB BBL[b]	TRAN[c]	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
AMERICAN MOTORS												
Gremlin, Hornet	A2	199	1	A	1	1	1	1	0	2	6	5
				M	1/2	0/1	1/2	1/2	1/1	2/4	6/12	5/10
Hornet, Gremlin Javelin, Rebel	A1	232	1	A	6	5	5	6	5	8	35	33
				M	3/9	5/10	4/9	3/9	4/9	5/13	24/59	22/55
Hornet, Rebel Ambassador	A3	232	2	A	2	2	2	3	2	0	11	13
Hornet, Rebel Ambassador, Javelin	A5	304	2	A	3	3	3	4	4	6	23	23
				M	0/3	1/4	0/3	0/4	0/4	0/6	1/24	0/23
Javelin, Ambasador, Rebel	A7	360	2	A	3	2	1	1	1	2	10	8
Javelin	A8	360	4	M	0	0	0	0	1	0	1	1
Ambassador Javelin, AMX	A9	360	4	A	0	0	1	1	1	3	6	6
Ambassador, AMX	A10	390	4	A	0	1	1	0	1	2	5	3
Rebel	A11	390	4	M	1	0	0	0	0	0	1	1
TOTAL AMC					20	20	19	20	20	30	129	120

a. Cubic inches displacement.
b. Number of carburetor venturis.
c. Transmission: A = Automatic; M = Manual.

Table 2-2. COMPOSITION OF TEST FLEET-Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
CHRYSLER CORPORATION												
Duster, Swinger, Barracuda, Dart Valiant	C10	198	1	A	0	1	0	3	2	2	8	15
				M	3/3	4/5	2/2	1/4	2/4	2/4	14/22	11/26
Duster, Dart Swinger, Lt. Duty Truck, Coronet Challenger	C11	225	1	A	14	13	10	12	11	15	75	70
				M	2/16	3/16	3/13	2/14	2/13	6/21	18/93	16/86
Fury, Coronet, Satellite, Duster Charger, Challenger Lt. Duty Truck, Swinger Polara, Valiant, Barracuda	C12	318	2	A	21	19	19	21	19	19	118	112
				M	0/21	1/20	2/21	1/22	1/20	1/20	6/124	7/119
Dart, Barracuda Duster, Swinger	C15	340	4	A	1	1	1	1	1	1	6	6
				M	0/1	0/1	0/1	1/2	1/2	0/1	2/8	3/9
Newport, Polara, Fury, Coronet, Charger, Monaco, D-100 Truck, Satellite, Challenger, Barracuda	C13	383	2	A	12	10	10	12	10	12	66	63
Newport, Fury, Roadrunner, Monaco,	C17	383	4	A	2	2	2	2	0	2	10	13

Table 2-2. COMPOSITION OF TEST FLEET-Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
CHRYSLER CORPORATION (Cont'd)												
Newport, Challenger, Roadrunner, Cuda	C18	383	HP4	A	0	2	1	0	3	0	6	11
				M	1/1	0/2	1/2	0/0	2/5	1/1	5/11	5/16
Imperial, 300, Newport	C14	440	4	A	3	2	3	2	4	2	16	17
GTX, Fury Challenger, Charger Coronet, 300	C19	440	HP4	A	1	2	3	2	0	3	11	8
				M	0/1	0/2	0/3	0/2	0/0	0/3	0/11	1/9
Charger	C20	440	6	A	0	0	0	0	1	0	1	1
				M	0/0	0/0	0/0	0/0	1/2	0/0	1/2	1/2
TOTAL CHRYSLER					60	60	57	60	60	66	363	360

Table 2-2. COMPOSITION OF TEST FLEET-Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
FORD MOTOR COMPANY												
Maverick	F30	170	1	A	1	1	1	2	1	2	8	10
				M	3	5	4	3	4	4	23	22
					4	6	5	5	5	6	31	32
Mustang, Falcon, Maverick	F31, F32	200	1	A	8	5	6	6	6	6	37	34
				M	1	1	3	2	2	2	11	12
					9	6	9	8	8	8	48	46
Ford Econoline	F37	240	1	A	1	0	1	2	1	0	5	4
				M	1	2	2	1	2	0	8	12
					2	2	3	3	3	0	13	16
Mustang, Maverick	F38	250	1	A	3	4	3	3	4	4	21	20
				M	0	1	1	1	0	1	4	4
					3	5	4	4	4	5	25	24
Fairlane, Torino, Falcon, Mustang, L.D. Truck, Montego Galaxie, Cougar, Ranchwagon	F33	302	2	A	15	12	13	14	14	14	82	79
				M	2	3	2	1	1	3	12	14
					17	15	15	15	15	17	94	93
Mustang	F39	302	4	M	1	0	0	0	0	1	2	1
Fairlane, Torino, Falcon, Mustang, L.D. Truck, Montego Galaxie, LTD, Cyclone, Ranchwagon, Brougham, Cougar	F34	351	2	A	20	18	18	20	17	18	111	104
				M	0	1	0	1	1	0	3	4
					20	19	18	21	18	18	114	108
Cyclone, Torino	F40	351	4	A	2	2	2	2	2	1	11	11
				M	0	0	1	0	0	1	2	3
					2	2	3	2	2	2	13	14

Table 2-2. COMPOSITION OF TEST FLEET-Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
FORD MOTOR CO. (Cont'd)												
L.D. Truck	F41	360	2	A	1	3	2	1	2	1	10	12
				M	1	1	1	1	2	0	6	8
					2	4	3	2	4	1	16	20
Galaxie, LTD,	F35	390	2	A	11	11	10	10	8	9	59	55
Station Wagon	F42	390	4	A	1	0	0	0	0	0	1	1
				M	0	0	0	0	0	0	0	1
					1	0	0	0	0	0	1	2
Mustang, Cougar	F44	428	4	A	0	0	1	1	0	0	2	3
				M	0	0	0	0	1	0	1	2
					0	0	1	1	1	0	3	5
Marquis, Galaxie, Montego, Custom, LTD.	F45	429	2	A	1	4	5	3	4	2	19	22
Galaxie, Thunderbird	F36	429	4	A	3	5	3	4	4	4	23	22
				M	0	0	0	0	0	0	0	1
					3	5	3	4	4	4	23	23
Fairlane, Cyclone, Custom, Montego, Torino, Ranchwagon, Galaxie, LTD, Monterey, Thunderbird, Marquis	F46	429	CJ4	A	1	0	0	0	1	0	2	3
				M	1	0	0	1	2	0	4	4
					2	0	0	1	3	0	6	7
Thunderbird, Lincoln, MarkIII, Continental	F47	460	4	A	3	2	2	2	2	2	13	12
TOTAL FORD					81	81	81	81	81	75	480	480

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Table 2-2. COMPOSITION OF TEST FLEET - Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
GENERAL MOTORS (CHEVROLET)												
Chevy II, Nova	G51	230	1	A	5	2	1	10	3	4	25	20
				M	2/7	3/5	2/3	2/12	2/5	0/4	11/36	8/28
C-10 Lt.D. Truck, Chevelle, Nova, Camaro, Malibu, Biscayne, Skylark F-85, Tempest, Firebird	G52	250	1	A	9	7	9	5	10	8	48	56
				M	8/17	7/14	4/13	4/9	10/20	6/14	39/87	59/115
Lt. D. Truck	G56	292	1	A	0	0	0	1	0	1	2	0
				M	0/0	0/0	0/0	0/1	1/1	0/1	1/3	4/4
Malibu, Nova, Camaro, Chevelle, Lt.D. Truck, ElCamino	G53	307	2	A	14	13	17	16	11	12	83	68
				M	4/18	9/22	6/23	6/22	6/17	5/17	36/119	36/104
Impala, Chevelle, Biscayne, Malibu, Camaro, Belair, Monte Carlo, ElCamino, Capri, Nova	G57	350	2	A	24	25	22	22	20	19	132	118
				M	1/25	0/25	3/25	1/23	1/21	1/20	7/139	8/126
Camaro, Capri, Nova, Lt.D. Truck, Impala, Monte Carlo, Corvette, Malibu	G55	350	4	A	15	16	15	12	12	13	83	73
				M	1/16	3/19	1/16	2/14	3/15	1/14	11/94	15/88

Table 2-2. COMPOSITION OF TEST FLEET - Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
GENERAL MOTORS (CHEVROLET) Cont'd												
Monte Carlo,Capri, Impala, Station-wagon	G59	400	2	A	7	0	7	7	8	6	35	43
				M	0	0	0	0	0	0	0	1
					7	0	7	7	8	6	35	44
Monte Carlo, Camaro, Chevelle, ElCamino	G60	402	4	A	2	3	2	0	1	0	8	7
				M	1	0	1	1	2	0	5	8
					3	3	3	1	3	0	13	15
Nova	G63	402	HP4	M	0	0	0	1	0	0	1	1
Impala, Corvette	G64	454	4	A	2	0	1	1	0	1	5	2
				M	0	0	1	0	0	0	1	1
					2	0	2	1	0	1	6	3
Impala	G65	454	HP4	M	0	1	0	0	1	0	2	4
GENERAL MOTORS (PONTIAC)												
Lemans, Firebird Catalina, Tempest	G61	350	2	A	9	10	10	9	9	9	56	54
				M	1	0	0	0	1	0	2	3
					10	10	10	9	10	9	58	57
Executive, Catalina, Ventura	G62	400	2	A	7	6	7	6	6	6	38	42
Firebird, Grand Prix, Catalina Judge, GTO	G68	400	4	A	5	7	6	7	4	4	33	25
				M	1	1	2	0	3	0	7	8
					6	8	8	7	7	4	40	33

Table 2-2. COMPOSITION OF TEST FLEET-Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
GENERAL MOTORS (PONTIAC) Cont'd												
Bonneville, Grand Prix	G70	455	4	A	1	2	4	5	4	4	20	23
				M	0	0	0	0	0	0	0	1
					1	2	4	5	4	4	20	24
GENERAL MOTORS (OLDSMOBILE)												
Cutlass, Delta 88	G66	350	2	A	9	9	7	11	9	9	54	51
				M	1	0	0	0	0	1	2	2
					10	9	7	11	9	10	56	53
Cutlass,	G72	350	4	A	2	3	3	1	2	2	13	14
				M	0	0	1	0	0	0	1	1
					2	3	4	1	2	2	14	15
Delta 88, Cutlass	G73	455	2	A	5	5	4	6	4	3	27	24
Cutlass, 442, Ninety-Eight, Delta 88, Toronado	G67	455	4	A	7	5	7	5	7	5	36	36
				M	0	0	0	0	0	0	0	4
					7	5	7	5	7	5	36	40
GENERAL MOTORS (BUICK)												
Skylark, LeSabre	G74	350	2	A	8	7	8	8	8	9	48	46
Skylark, LeSabre	G71	350	4	A	7	6	5	4	5	5	32	32
Electra, Wildcat, Rivera, LeSabre	G75	455	4	A	8	11	10	11	10	10	60	61

Table 2-2. COMPOSITION OF TEST FLEET - Cont'd.

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
GENERAL MOTORS (CADILLAC)												
DeVille Fleetwood	G77	472	2	A	5	8	8	7	7	7	42	44
ElDorado	G78	500	4	A	0	0	1	0	1	0	2	5
TOTAL GENERAL MOTORS					171	169	175	171	171	151	1008	1008

21<

Table 2-2. COMPOSITION OF TEST FLEET-Concluded

MANUFACTURER	CLASS	CID	CARB BBL	TRAN	KC	HOUS	LA	DETR	DENV	WASH	ALL CITIES ACTUAL	ALL CITIES SUGGESTED
VOLKSWAGEN												
Beetle, Convertible, Karmann Ghias, Fastback, Squareback	V82	97	FI	A	1	1	1	1	2	1	7	10
				M	2/3	2/3	2/3	3/4	1/3	2/3	12/19	10/20
Bus, Beetle,	V83	97	1	A	3	3	2	3	4	3	18	20
				M	14/17	14/17	14/16	13/16	13/17	15/18	83/101	78/98
Porsche	V84	103	FI	M	0	0	1	0	0	0	1	2
VOLKSWAGEN TOTAL					20	20	20	20	20	21	121	120

SECTION 3

VEHICLE PROCUREMENT

3.1 STRATEGIES USED

3.1.1 Introduction

The contract required that at least 90 percent of the fleet be composed of vehicles owned and operated by individuals for personal and family use in order that the fleet be typical of the vehicle population from the standpoint of driver habits, maintenance procedures and operational condition. Actually, less than five percent of the fleet was composed of vehicles obtained from corporate fleets, car rental agencies, Federal GSA fleets, city car pools, and other non-individual sources.

The central theme of the procurement strategies was that most people would be eager to participate in a control-oriented air pollution program such as the National Surveillance Program. This assumption was at least partially justified by the relatively good response obtained using the same or similar strategies in earlier EPA Surveillance Programs.

3.1.2 Mass Media

An important strategy was to convene a news conference, at the time of program startup in each new city, to publicize the program and encourage vehicle owners to volunteer their cars for testing.

The mass media were not universally cooperative, however. In Los Angeles air pollution control and testing is not especially newsworthy because the subject is commonplace, and it was difficult to capture the interest of sympathetic reporters and columnists. In Kansas City, testing in conjunction with another program had been underway for about 12 months, and the mass media were generally saturated with the program. In addition, air pollution is not a real problem in Kansas City, and this contributed to the lack of enthusiasm by the mass media for the program. Similarly, there had been a Surveillance Program underway in Houston for many months, and the response to the program in Houston by the mass media was rather apathetic.

3.1.3 Corporate Contacts

It was originally anticipated that substantial support by major corporations would be readily obtainable.

Accordingly, emphasis was placed upon this strategy at the inception of the program and several hundred senior executives of major companies were sent personal letters asking for their support by volunteering company controlled cars and more important, by publicizing the program and endorsing it for their employees' participation. In Los Angeles, 19 out of 323 companies contacted actually offered assistance; 13 of these actually turned out to be sources of test vehicles; a total of approximately 44 vehicles was obtained from this source in Los Angeles. Because of dismal results in Los Angeles, this strategy was relegated to lesser importance in subsequent cities.

3.1.4 Organizations, Institutions

Many other organizations and institutions were contacted and their assistance was solicited in locating test vehicles. The most prominent of these are herewith listed, along with a comparatively subjective assessment of their willingness to assist (excellent, good, poor) and the number of test vehicles derived therefrom (many, some, nil):

- American Automobile Association: Excellent; many
- Tuberculosis and Health Association: Excellent; some

- League of Women Voters: Good; some
- Association of University Women: Good; some
- Churches: Poor; nil
- Chambers of Commerce: Poor; nil
- Social Clubs and Organizations: Poor; nil
- Schools, Universities: Good; some
- City and County Governments: Excellent, many

The method for approaching these candidate vehicle sources was not passive. In addition to an initial personal letter sent to the key contacts of each candidate source, at least one subsequent personal or telephone contact was attempted, and in many cases many ongoing contacts were made, frequently with no results.

3.1.5 Mass Mailings

In each of the cities, mass mailing to candidate test vehicle owners was used to varying degrees. The literature used was essentially identical in all mailings, as was the enclosing envelope. Nevertheless, percentage response to the mailings varied significantly.

The procedure used in conjunction with the mass mailings resulted in certain minor problems. Persons willing to permit their cars to be tested were asked to return to

the project team a postage paid card showing the vital statistics of their vehicles. Frequently people were not sure of certain vehicle characteristics (i.e., cubic inch displacements, number of carburetor barrels) and did not include the information. In other cases, willing vehicle owners indicated incorrect vehicle statistics, and the discrepancy was not determined until the vehicle appeared at the testing site. Notwithstanding these minor problems, the mass mailing strategy was generally considered to be successful.

3.1.6 Other Sources

Numerous other sources of test vehicles were also explored and utilized to varying degrees. An important source of test vehicles was by word of mouth contact from persons whose cars had been tested earlier. Brochures were placed on the windshields of acceptable candidate vehicles in parking lots with the approval of the parking lot management, and some vehicles were derived therefrom. In several cases, members of the project team approached the drivers of urgently needed vehicles and asked their assistance, again with varying results.

3.2 CONTRACTOR, VEHICLE-OWNER INTERFACE

Normally, a vehicle owner who became interested in participating as a result of one or more of the above strategies contacted the test center by telephone or personal visit. The test center would answer the questions about the program, and obtain necessary information on the owner's car, his name, telephone number and address. In case the candidate had returned a post card received in a mass mailing campaign, he was contacted by telephone. If the car make, model, mileage, etc. were correct for the program, and the owner was willing to participate, the car was scheduled for testing at a mutually convenient time.

When the day for testing arrived, the participant's car was usually brought in by him, but would be picked up by test center personnel if necessary. The participant was asked to sign an agreement protecting him, his vehicle and his insurance company from any liability arising from the program (Fig. 3-1). He was provided with a late model, fully insured loan-car to replace his vehicle.

When the participant's car was returned, he was given a cash payment of $5.00. If the participant expressed interest in how his car performed in the test, and usually this was the case, he was told the results. If the test

FIGURE 3-1

?9<

Olson Laboratories Incorporated

22805 MICHIGAN AVE. DEARBORN, MICHIGAN 48124

Vehicle Number .....

TEST AGREEMENT

Your vehicle is being loaned to Olson Laboratories, Inc. for use in an important new program for cleaner air. This agreement, signed by the president of Olson Laboratories, Inc. is your assurance of full protection against any loss sustained by accident or damage to the vehicle while in the possession of Olson Laboratories, Inc. or its representatives.

1. In consideration of the sum of .....dollars, I, ... agree to loan my vehicle described as' a .....registered in the State of....., license plate number .....to Olson Laboratories. Inc. for a period of time not to exceed five days. I understand that I may refuse to loan the vehicle to Olson Laboratories, Inc. at any time and that I am under no obligation whatever to Olson Laboratories, Inc.

2. Olson Laboratories, Inc. agrees to be fully responsible for any and all damage to the vehicle occurring while the vehicle is in the possession of Olson Laboratories, Inc. or its representatives. Possession is hereby defined as care, control, custody, operation, inspection or storage between the time the vehicle is received from the owner by Olson Laboratories, Inc. or its representatives and the time the vehicle is returned to the owner by Olson Laboratories, Inc. or its representatives.

3. Olson Laboratories, Inc. agrees to indemnify and hold harmless the vehicle owner of any repairs, damage, loss or liability sustained by the vehicle owner by reason of accident or damage to the vehicle while in the possession of Olson Laboratories, Inc. or its representatives.

4. Olson Laboratories, Inc. agrees to provide primary automobile liability insurance on the vehicle while in the possession of Olson Laboratories, Inc. or its representatives.

5. Olson Laboratories, Inc. agrees to be extremely careful in the use of the vehicle, and agrees to return the vehicle to the vehicle owner in as good exterior, interior and operating condition, except for normal wear and tear, as when the vehicle was received by Olson Laboratories, Inc. or its representatives.

6. Agreed to this .....day of ....., 19.....by

Donel R. Olson

.....and .....

Donel R. Olson, President
Olson Laboratories, Inc.

Vehicle Owner

.....

Payment Received: Amount.....Check No.....Date .....Initial.....

Condition of vehicle when received by OLI:

Initial.....Date.....

Condition of vehicle when returned by OLI:

Initial.....Date.....

revealed that emissions were high due to malfunctioning of the carburetor or ignition system, the participant was advised to have his car checked and corrected for these defects.

3.3 DIFFICULTIES ENCOUNTERED

Two main difficulties were encountered in the procurement effort; namely, (1) obtaining vehicles that had odometer readings within the specified limits, and (2) obtaining certain make-engine-transmission combinations that were scarce due to low sales volume.

Originally, the contract specified that the mileage on the 1970 model vehicles should be between 4,000 and 10,000 miles. Since the program got underway late in 1970, about a year after introduction of the 1970 models, a large proportion of the available vehicles already had acquired more than 10,000 miles. The Project Officer lifted the upper mileage constraint to 15,000 miles to alleviate the difficulty. Near the end of the program, it became necessary for him to remove the upper mileage constraint entirely. The average mileage of all cars tested was 10601.

At the time the Project Officer removed the upper mileage constraint he also relaxed the requirements governing composition of vehicle classes so that classes

that had been difficult to find could include vehicles that were as nearly the same as possible with respect to engine-transmission-carburetor combination. These substitute vehicles were procured in accordance with a hierarchy of preferred characteristics. As first preference, the substitute for a vehicle of a given make-displacement-transmission-carburetor combination would differ only in transmission type (automatic or manual). If such a substitute were not available the next preference would be a combination differing only in carburetor type (number of venturis). Next, there would be a combination differing in both transmission and carburetor types. Finally, a combination in which the next displacement size in a given engine series would be the only difference permitted. At the end of the program, it was necessary to overtest in some of the more popular vehicle classes so that the total number of vehicles from each manufacturer would meet the contract requirements.

As a result of the procurement difficulties encountered, the final composition of the test fleet was slightly different than that originally suggested by the Project Officer. A comparison of the actual and intended composition is shown in Table 2-1.

SECTION 4

INSTRUMENTATION AND EQUIPMENT

4.1 DESCRIPTION

The instrumentation and test equipment listed below were used for vehicle emission measurements at each test site.

- OLI complete vehicle exhaust sampling and analysis system consisting of:
  1) Five (5) Beckman Model 315 or 315A (or Olson-Horiba Model AIA-2) NDIR analyzers for measurement of low range HC, high range HC, CO, CO_2 and NO.
  2) Three (3) Texas Instrument or Honeywell Strip Chart Recorders.
  3) Standard EPA design sampling system.
  4) OLI/PCS (Hewlett-Packard) Data Reduction System.
  5) PCS Driver's Aid and Pendant.
- OLI Calibration Gases traceable to EPA Gold Standards.
- Clayton C-200 variable inertia dynamometer with incremental inertia loading.
- Diagnostic instruments such as calibrated tachometers, vacuum and compression gauges, dwell meters, and timing lights.
- A winch to pull and fix the vehicle on the dynamometer.
- An air compressor, battery charger, and other miscellaneous equipment.

4.2 SYSTEM QUALIFICATION

4.2.1 Introduction

Five analytical systems were used to conduct emission tests on 1970 vehicles in the six cities. One system, the OLI master, was used for testing in both Kansas City and Washington, D.C. It was a contract requirement that each of these systems be qualified by the EPA before testing began. An OLI master system was standardized by calibrating it with an EPA standard system at the Division of Motor Vehicle Pollution Control Laboratory at Ypsilanti, Michigan prior to the start of the test program. The master system was then sent to Kansas City for tests there and for calibration of the other systems. The other four systems were standardized by calibrating each system with the master system on a computer-to-computer basis to the satisfaction of the Project Officer.

4.2.2 Standardization of Master Analytical System

The standardization of the OLI master system took place at EPA facilities at Ypsilanti, Michigan, from July 1 to July 8, 1970. At the end, successful calibrations for HC, CO, CO_2, and NO were obtained in Federal Cold Start tests on three different vehicles with both analysis systems sampling the exhaust simultaneously. Calibration was established on the basis of derived strip chart values,

although computer-to-computer and computer-to-strip-chart comparisons were also made.

In conducting the calibrations, a special double-probe was inserted in the vehicle's tailpipe, and separate sample lines were run to each analytical system. Tests had been performed previously to show that there was no interaction between the two sampling systems despite the proximity of the two probes in the tailpipe. Emittant concentration values (not adjusted by factors for dilution and weighting) were compared on a mode-by-mode basis. For a given mode the maximum allowable concentration difference between the two systems was set at 2.0 percent of instrument full scale reading for each analyzer.

The calibration procedure was such that any variations in concentration readings due to lack of precision in calibration gas analysis, recorder calibration, and hand reading of strip charts were included in the above tolerances. OLI calibration gases previously qualified by EPA were used with the OLI system. OLI and EPA personnel operated their respective systems simultaneously and hand-read their strip charts independently. After EPA was satisfied that the OLI system and the EPA system were within tolerances, the OLI master system was sent to Kansas City to conduct tests and to standardize the other systems used in the project.

4.2.3 Qualification of Calibration Gases

Additional OLI standard gases for use in the program were analyzed by EPA at Ypsilanti to relate their concentrations to the concentrations of EPA standard gases. This was done prior to the system calibrations in Kansas City. As an additional check, when the gases arrived in Kansas City, they were checked against previously qualified OLI standard gases for compatibility. Some discrepancies were found and several bottles were returned and reanalyzed by EPA.

4.2.4 Standardization of Other Analytical Systems

The OLI master system was used to standardize each of the other systems on a computer-to-computer basis. This method of calibration was more comprehensive than an analyzer-to-analyzer comparison or a strip-chart-to-strip-chart comparison because it involved the complete system - data processing equipment as well as calibration gases, analyzers, and flow systems. Each system was calibrated under the supervision of EPA representatives.

For CO, HC, and CO_2, the maximum allowable difference between concentration values for the same mode on the two computer printout sheets was two percent of the instrument full scale reading. A tolerance of four percent of full scale was allowed for the NO concentration values.

These criteria were applied independently to each emission value within each mode of the complete Cold Start test. In other words there were 168 (6 cycles x 7 modes/cycle x 4 emittants) possibilities for errors on each test. For system-to-system calibration, complete 7-mode emission tests were required on three different vehicles. Thus a total of 168 x 3 = 504 individual measurements were recorded. It was a requirement that less than five percent of these exceed the tolerances.

4.2.5 Periodic System Cross-Checks

On-site periodic inspections were made by the EPA at each facility to insure that the analytical systems were still in agreement with the EPA system. These inspections also provided an opportunity to correct any problems that might have arisen in connection with procedures and record keeping. The system checks were made by EPA personnel using their Automatic Dynamic Calibrator (ADC), and by simultaneous emission testing with the EPA's mobile testing equipment. The ADC device produces cyclical changes in concentration using calibration gases of known analysis, and provides a means to check analyzer readings, system response time, mode integration, and computer calibration under steady state and transient sample flow conditions. The procedures used in the simultaneous testing were the

same as those used during the system qualification. There was no computer on the EPA's mobile van, but the OLI computer results were checked against the hand-read strip-chart values of both analytical systems. Other tests that were performed on these audits included leak checks, analyzer curve checks using OLI standards, wet N_2 and CO_2 response checks, analyzer response time, and hydrocarbon hang-up checks.

After the qualification of the OLI master in July 1970, two more audits were made on that system. The first took place in Kansas City in September 1970, prior to standardization of the Houston system, and the second in June 1971. Periodic audits were made in Houston in October 1970, and in July 1971. EPA personnel also made audits at the Los Angeles, Denver, and Detroit facilities in the summer of 1971.

The only serious problem brought to light by any of these cross-checks occurred in Houston in July 1971. This audit revealed an internal nitrogen leak past a three-way valve in the low-range hydrocarbon (LHC) sample stream. Leak measurements on the sampling systems showed that only the LHC system was affected, and that the sample was being diluted 13 to 16 percent. The leak was corrected and a program was initiated to determine whether previous data had been affected. The systems had been thoroughly checked and

found satisfactory on April 16, 1971. Twenty-eight (28) vehicles that had been tested in sequence during the possible period of the leak were recalled and tested again. A method was devised to adjust the hydrocarbon results of the two tests on each vehicle to the same CO level, in order to eliminate the effects of a change in air-fuel ratio on hydrocarbon results. Statistical analysis showed good evidence that the percentage change in hydrocarbon level increased with time. In other words, the leak was very small at the start of the period and increased steadily with time. A least-squares straight line fitted through these engine emission data gave very close to the same amount of leak at the end of the period as the amount found by the bench test and indicated that the leak started about April 26. A correction procedure based on the linear relation found was accepted by the Project Officer. All cycle 1-4, cycle 6-7, and composite hydrocarbon data obtained in tests made between April 26, 1971 and July 19, 1971 were corrected by dividing by 1.2088 - 0.0018 Day No., where Day No. is the serial number of the day in 1971; 1 for January 1, 1971.

The investigation and correction of the leak problem was described in detail in a separate report to EPA dated October 8, 1971 and entitled "Effect on Hydrocarbon Emission Data of Leak Found in Houston Sample Train on July 9, 1971".

SECTION 5

TESTING AND CALIBRATION PROCEDURES

5.1 EMISSION TEST PROCEDURES

5.1.1 Initial Vehicle Inspection

Prior to accepting a vehicle for participation in the program, it was given an initial inspection for suitability. The exhaust system was checked for leaks, and the tires checked for excessive wear. Also, the vehicle was given a brief under the hood visual check to be sure the engine had not been modified by the owner in such a way as to make it non-representative. The odometer was checked to be sure the vehicle had at least 4,000 miles on it. If all selection criteria were met, a Test Vehicle Information (TVI) form was filled out.

5.1.2 Federal 7-Mode, 7-Cycle Cold Start Exhaust Emission Test

Each vehicle was soaked indoors for a minimum of twelve hours at 60°F - 86°F and was pushed or winched onto the dynamometer and fixed into place. The sample probe and exhaust tubing were connected, the hood raised and the cooling fan placed into position. The fuel pump was connected to a supply

of Indolene test fuel, and the fuel line from the tank clamped shut. A few vehicles were equipped with a fuel return line. If so, this line was also disconnected and clamped, and a return line attached to the Indolene supply.

The inertia weight was set (the road load horsepower was always preset using the previous car), and the tachometer pick-up connected to the coil to complete the car preparation prior to testing. The inertia weight and horsepower settings for each vehicle model were specified by the Project Officer in a letter to OLI dated November 12, 1970.

The analytical system was calibrated (see Section 5.2.6), and all the necessary data from the TVI form entered into the computer. This data included information about the vehicle being tested (make, model, year, CID, odometer, serial number, etc.), and information needed by the computer to calculate modal correction factors, humidity correction factor for NO_x, and mass emission results. This latter data included the inertia weight, transmission, wet bulb and dry bulb temperatures, barometric pressure, and a modal correction factor code.

At this point the computer "asked" for a zero check on each analyzer. The test could not be continued until this check

was performed. If the analyzer zeros differed from true zero by more than 0.5 percent of the analyzer full-scale value, the test could not continue.

The Federal 7-mode, 7-cycle Cold Start exhaust emission test was performed according to procedures specified in the 1968 Federal Register, Volume 33, No. 108, Part II. During the test, a speed-time trace was recorded on a strip chart, giving a permanent record of driver performance. An additional check on driver performance was provided by the computer, which recorded the number of deviations from prescribed limits ($\pm$ 1 MPH on steady states, $\pm$ 3 MPH on accelerations, and + 3 MPH on decelerations) for each mode. The number of deviations occurring during the integrated portion of each mode became a part of the computer printout information. The computer also monitored the length of each deviation in seconds and tenths of seconds. At the end of each cycle the computer printed out the total number of deviations (including those occurring in the non-integrated portions of the test), and the time duration of the maximum deviation.

During the fifth cycle the analytical system was purged and reconditioned. The sample pumps were shut off, the analyzers were purged with nitrogen, the condensate traps were drained and the sample lines were backflushed. The

particulate filters were changed and the analyzer zeros were all reset. The analytical system was brought back on stream at the beginning of the sixth cycle idle mode.

5.1.3 Clayton KEY MODE Test

After completion of the Cold Start emission test, each vehicle was given a Clayton KEY MODE Diagnostic test. This consisted of taking steady state emission readings at high and low cruise modes, and at idle. The test procedure was as follows:

The inertia flywheels on the dynamometer were disengaged. The desired relation between power absorption and speed on the Clayton dynamometer was obtained by presetting the load to an indicated 30 road-load horsepower at 50 MPH. (For lower powered vehicles this indicated setting could be 24 horsepower at 46 MPH or 15 horsepower at 38 MPH if more convenient.) The high and low cruise speeds to be used were determined from the vehicle weight as shown in the following table.

KEY MODE TEST SPEEDS, MPH

Vehicle Weight, lb.	High Cruise	Low Cruise	Idle*
3800 - up	48/50	32/35	0
2800 - 3750	44/46	29/32	0
2000 - 2750	36/38	22/25	0

* Automatic transmissions in drive gear

After the driver had reached the indicated speed, the analytical system was activated. After the emission levels stabilized, the computer was activated and at least three readings were taken of all emittants, the dynamometer speed (MPH) and the engine RPM.

Following completion of the KEY MODE test, the driver reset the power absorption unit for the next test, and the analytical system operator performed the necessary checks to validate the test. The vehicle idle RPM, the basic ignition timing, and the dwell setting were also measured and recorded on the computer printout sheet.

In order to record as much information as possible from each test, a section of the computer print-out sheet was reserved for comments by test personnel. Comments entered included drivability remarks by the driver, and general remarks about the condition of the vehicle. Examples included obvious misfiring or generally poor performance, a spark plug wire shorting across the exhaust manifold, clogged PCV valve, etc. These observations and comments were helpful in understanding the cause of excessively high emission levels in individual tests.

5.1.4 Data Reduction

The OLI/PCS data reduction system was programmed to do all the necessary calculations at the completion of each test.

The modal correction factors were calculated, as specified by the Federal procedure, using the formula:

$$cf = \frac{14.5}{\%CO_2 + (0.5)\% CO + (10.8)\% HC}$$

For those cars equipped with a fuel shut-off device, such as the fuel-injected Volkswagens, a switch was activated on the system console and the computer automatically used the idle mode correction factor for the two deceleration modes.

The conversion from composite concentration to mass values was made per the Federal Registers, Volume 33, No. 108 and Volume 34, No. 125 with one difference. The Project Officer decided that the subtractive adjustment to HC and CO exhaust emissions from vehicles equipped with evaporative emissions control systems should not be applied in computing the test results. The only 1970 models so equipped were those sold new in California.

A humidity correction factor was applied to the NO_x results to relate them to an absolute humidity of 75 grains of water per pound of dry air. The humidity correction factor (K) was determined by the following formula:

$$K = 0.796 + 0.00175H + 0.0000129H^2$$

where H is the humidity at test conditions in grains of water per pound of dry air. H was calculated by the computer from the wet-bulb and dry-bulb temperature readings and the barometric pressure.

5.1.5 Quality Control

The following standard testing procedures were followed by OLI throughout the program:

A) Test Site Quality Audit: The results of each test were checked briefly for obvious analytical system or test operational errors before the vehicle was returned to the participant. If the results or testing procedures were in doubt, the vehicle was held over and the test rerun.

B) Calibration Gases (Daily Working Gases): The concentrations of OLI working gases were checked initially against the concentrations of OLI standard gases, and were rechecked each time an analyzer curve check was performed. The working gases were changed when the bottle pressure dropped below 150 pounds.

C) Cleaning and Maintenance of Analyzer Systems: Periodic cleaning and maintenance was done primarily on the basis of tailpipe purge results and analyzer performance. When it was deemed necessary, the sample lines and sample probe were replaced or cleaned with an organic solvent such as trichloroethylene. Sample cells and cell windows were similarily cleaned. Other maintenance, such as retuning the analyzer oscillator assembly or rephasing the magnetic switches, was done as the analyzer operation indicated a need for it.

D) Record Keeping: Daily records were kept of all analyzer tune and gain settings, leak checks, LHC and HHC analyzer response to 100 percent CO_2 gas, tailpipe purge responses, etc. A daily record of a typical analyzer calibration was also kept. This included the working gases used, the bottle pressures, the span concentrations and set points, and a printout of the computer responses to the span gases and zero gas. Records

of any maintenance done on the analytical system or the dynamometer were also kept on these sheets.

5.2 CALIBRATION AND ANALYTICAL SYSTEM CHECK OUT PROCEDURES

The addition to a number of periodic checks made by EPA, OLI performed a series of daily, weekly, and monthly system checks.

5.2.1 Leak Checks

On a daily basis, the sample system was leak checked by blocking the inlet to the sample probe, turning the sample pumps on, and observing the rotameter readings (and pressure gauges if so equipped). An internal nitrogen leak problem discovered in Houston by EPA during a periodic cross-check prompted the adoption of an additional leak check technique. If any anomalies appeared on a daily check, the span gases were checked through the entire sampling system. These readings had to be the same or slightly higher (due to hang up) than the same gases introduced directly into the analyzers.

5.2.2 CO_2 Interference Checks

Before beginning the first test in the morning, the low and high hydrocarbon CO_2 interference cells were recharged

with wet 100 percent CO_2, under a slight pressure. Then prior to each test the LHC analyzer response to dry 100 percent CO_2 was checked and recorded on the instrument strip chart. If necessary, the interference cell was recharged before proceeding with the test. The HHC analyzer response was checked in the morning and following every cell recharge.

5.2.3 Tailpipe Purge (Hang-Up) Check

Before the start of test and at the completion of each test, nitrogen was passed through the analytical bench, starting at the sample probe, to determine system hang-up. The results were recorded on the strip charts. If the hydrocarbon reading was higher than 1.0 - 1.5 percent of full scale, as it would often be after testing a particularly "dirty" vehicle, the system was purged and back-flushed until the hang-up was brought back to normal. This was accomplished before another vehicle was tested.

5.2.4 Data Reduction System Check

The analog to digital converter was given a "zero" and "span" check once a day, and adjusted if necessary. Also, the interface unit was checked each day by obtaining a zero voltage output from each analyzer on the system's digital voltmeter (DVM) and checking the computer response. The interface was adjusted if necessary to give a computer printout of zero (or close to zero) for each analyzer.

5.2.5 Flow Rates and Bypass Rates

The flow rates were checked on a test to test basis especially during the first and sixth cycles. In the morning, the zero gas (nitrogen), the span gas, and the 100 percent CO_2 gas flow rates were also checked and reset, if necessary, so that the entire calibrating procedure could be completed without changing any flow control valve settings.

At least once a week the system bypass rates and the maximum sample pump flow rates were also checked. After confirmation that the sample pumps were still functioning properly, the bypass and flow rates were set back to system specifications.

5.2.6 Analyzer Adjustment Checks

The following check procedure was carried out before each test. All the analyzers were zeroed on nitrogen, and spanned with two calibration gases. A high span gas was used to set the analyzer gain, and an intermediate span gas as a check on the integrity of the analyzer curve. A record of each adjustment was preserved on the instrument strip charts. Also, a computer printout was obtained for each calibration checking the zero, high and intermediate span points. At the end of each test, the zero and both span points were rechecked without any zero or gain adjustments and the results recorded on the strip charts.

The recorders were also checked each day. The zero and span settings were adjusted to agree with the system digital voltmeter readings.

5.2.7 Analyzer Calibration Curve Checks

Analyzer curves were rechecked every four to six weeks with OLI standard gases traceable to EPA Gold Standards. This was also done by EPA during their periodic "on site" cross checks.

The analyzer curves were generated by the PCS data reduction system. The computer solftware fitted a calibration curve through a number of known points (determined by the standard gases). The mathematical method employed in the software program to fit the curve and interpolate between points is based on the Lagrangian form of the interpolating polynomial. This is the same procedure as used by EPA. The computer calculated and stored the curves internally as tables in units from 0 to 1,000, and referenced these tables to determine concentration values. The teletypewriter printed the tables in one percent increments from 0 to 101 for evaluation by the operator. The same program was used to generate DVM and strip-chart-recorder curves.

5.2.8 System Time Delay Checks

A check was made daily to see that the triggering of integration by the computer upon detecting a change in

concentration was synchronized with the mode change indicated on the strip chart. This was done by checking the time relation on the strip chart between the observed start of a new mode and the pen-mark denoting start of integration by the computer.

In addition, every two weeks the strip charts of a random test were completely hand read and the results compared with computer values.

5.2.9 Miscellaneous Analytical System Checkout

1. Ice Bath: The water level and temperature were checked each day prior to testing.

2. NO Dryer Columns: The indicating Drierite used in the NO dryer columns was checked prior to each test. If necessary, it was changed before testing was initiated.

SECTION 6

SUMMARY AND ANALYSIS OF RESULTS

6.1 FOREWORD

The distribution of the vehicles in the experimental program provides a stratified sample of the national population of 1970 model production. The number of test vehicles for each make in each city is proportional to an estimate of the percentage of the 1970 population. An attempt was made to proportion various models within makes according to sales. The resulting small number of some models precluded more than a general averaging for each make as a whole. The complete vehicle breakdown is presented in detail in Section 2.

Statistical analyses were performed to determine average emission levels and standard deviations for each manufacturer, each General Motors'make, and all vehicles combined. This was done for each city, for all six cities, and also for the five low-altitude cities (excluding Denver). The Denver data are markedly different from those in the other cities. This could be expected because of the enrichening

effect of altitude on carburetor metering (Denver is at an elevation of about 5000 feet) and the concomitant effect on emission levels. The averages for the five low-altitude cities are thought to be more representative of the nation-wide population of 1970 model vehicles. Tables in Appendix C present the results of these analyses in detail.

The contract did not require an analysis of variance. However, 152 one-way variance combinations were computed, based on the sample sizes, means (arithmetic averages), and standard deviations in Appendix C, to aid in judging the significance of differences among makes and cities for each emittant. In addition, 95-percent confidence limits for the means were computed.

The variance analyses and the confidence limits are considered together. The variance analysis indicates whether there is a "significant" difference attributable to say, cities, (or makes), and the 95-percent confidence limits show which cities (or makes) are probably responsible for the "significance" if any. The interpretation is based on normal distribution theory (refer to Section 6.5). Results of the variance analyses reveal highly significant differences not only between the high-altitude city and

the group of low-altitude cities, but also among the low-altitude cities themselves. It was beyond the scope of the contract, however, to test statistically for distinct populations within the group of low-altitude cities.

The main body of detailed information and results on which the summaries and analyses in this section are based is located and classified in the Appendix.

Appendix	Type of Material
A	Test Vehicle Information Tables
B	Vehicle Emission Test Data Tables
C	Statistical Information Tables (Emission Means, Standard Deviations, Average Vehicle Mileage)
D	Variance Analysis Tables
E	KEY MODE Test Data Tables
F	KEY MODE Regression Data

The Federal Cold Start exhaust emission test results are presented both on mass and concentration bases. NO_x data are corrected for atmospheric humidity by the method explained in Section 5.1.4, and designated NO_xC. Uncorrected NO_x data are found only in the Appendix.

6.2 AVERAGE EMISSION LEVELS

6.2.1 Averages For Cities

Average emission levels for each city, for all six cities, and for the five low-altitude cities (excluding Denver) are summarized in Table 6-1. Denver is obviously a special case. The enrichening effect of altitude on carburetor metering is indicated by the very high CO level, with correspondingly high HC and low NOx. The five-city averages, excluding Denver, indicate that the HC and CO emission levels of 1970 model production vehicles in consumer use are significantly higher than the Federal standards for certifying prototype vehicles. There were no standards in effect for NO_x.

6.2.2 Averages For Manufacturers And Makes

Average emission levels for the five manufacturers (and five GM makes) that make up the sample of 1970 model vehicles tested are presented in Table 6-2 based on five-city averages (excluding Denver). Variance analyses performed on the five-city sample indicate that differences between makes are highly significant for all three emittants (see Table 6-3).

TABLE 6-1

AVERAGE EXHAUST EMISSION LEVELS FOR CITIES

	Number of Vehicles	Hydrocarbons, Gm/Mile			Carbon Monoxide, Gm/Mile			Oxides of Nitrogen, Gm/Mile		
		Mean[a]	Conf.	Limits[b]	Mean[a]	Conf.	Limits[b]	Mean[a]	Conf.	Limits[b]
Kansas City	352	2.65	2.54	2.76	35.1	33.0	37.2	4.54	4.38	4.70
Houston	350	3.00	2.84	3.16	40.8	38.2	43.5	4.74	4.55	4.93
Los Angeles	352	2.46	2.28	2.64	32.5	30.4	34.7	5.04	4.86	5.22
Detroit	352	3.08	2.93	3.23	39.4	37.0	41.9	4.27	4.10	4.44
Denver	352	4.25	4.00	4.50	65.1	62.1	68.2	3.83	3.67	3.99
Washington, D.C.	343	2.99	2.80	3.18	29.8	28.0	31.7	4.82	4.64	5.00
All Vehicles	2101	3.07	2.99	3.15	40.5	39.4	41.6	4.54	4.47	4.61
Exlcuding Denver	1749	2.83	2.76	2.90	35.6	34.5	36.6	4.68	4.60	4.76

a. Arithmetic mean

b. 95% confidence limits for the mean

TABLE 6-2

AVERAGE EXHAUST EMISSION LEVELS FOR MANUFACTURERS
(Combined Data for Five Cities - Excluding Denver)

	Number Tested	Average Mileage	Hydrocarbons, Gm/Mile			Carbon Monoxide, Gm/Mile			Oxides of Nitrogen Gm/Mile		
			Mean[a]	Conf. Limits[b]		Mean[a]	Conf. Limits[b]		Mean[a]	Conf. Limits[b]	
American Motors	109	9819	2.50	2.34	2.66	26.3	22.7	29.8	4.86	4.56	5.16
Chrysler Corp.	303	10088	2.90	2.77	3.03	41.8	38.6	44.9	5.89	5.68	6.10
Ford Motor Co.	399	10238	3.02	2.81	3.23	31.2	29.4	32.9	4.75	4.59	4.91
General Motors	837	11426	2.81	2.71	2.91	38.4	36.9	39.8	4.28	4.18	4.38
Chevrolet	444	11327	3.03	2.89	3.17	40.0	38.1	41.9	4.08	3.95	4.21
Pontiac	129	11561	2.74	2.46	3.02	31.3	27.5	35.2	3.91	3.69	4.13
Oldsmobile	111	11654	2.29	2.02	2.56	33.5	29.6	37.5	3.82	3.57	4.07
Buick	117	11187	2.65	2.51	2.79	44.7	40.5	48.9	5.19	4.90	5.48
Cadillac	36	12248	2.38	2.06	2.70	37.8	33.3	42.4	6.44	5.88	7.00
Volkswagen	101	9357	2.53	2.30	2.76	20.9	19.1	22.7	3.88	3.67	4.09
All Vehicles	1749	10704	2.83	2.76	2.90	35.6	34.5	36.6	4.68	4.60	4.76

a. Arithmetic mean

b. 95% confidence limits for the mean

As shown in Table 6-2, vehicles representing the bulk of 1970 production, Chrysler products, Ford products, and GM's Chevrolet make, have the highest mean hydrocarbon levels. Oldsmobile and Cadillac have the lowest means, only slightly above the Federal standard of 2.2 gm/mile.

Chrysler and General Motors have the highest mean CO levels, which are significantly higher than Ford's, judging from the confidence bands. Chevrolet and Buick are mainly responsible for the high level of the GM sample. Only Volkswagen met the standard of 23.0 gm/mile. Its 95 percent confidence band is marginally below.

Data on nitrogen oxide emissions were obtained, although there were no NO_x standards in effect for 1970 model vehicles. Results showed pronounced differences between makes, whether or not the NO_x emissions were corrected for humidity.

It should be pointed out that the above comparisons between makes involve city effects as well as make effects since they are based on the 5-city sample. Comparisons between makes in the same city and between cities for the same make are presented in detail in the next section.

TABLE 6-3

SUMMARY OF RESULTS OF VARIANCE ANALYSES[a]

	Concentration			Mass		
	HC	CO	NO_xC	HC	CO	NO_xC
Between makes in same city						
Kansas City	**	**	**	-	**	**
Houston	**	**	**	-	**	**
Los Angeles	*	-	**	-	*	**
Detroit	**	**	**	**	**	**
Denver	*	**	**	-	**	**
Washington	*	**	**	-	**	**
Between cities for same make (Denver excluded)						
American Motors	-	-	-	-	-	-
Chrysler	**	-	*	**	-	-
Ford	-	**	-	-	**	-
Chevrolet	**	**	**	**	**	**
Pontiac	-	*	-	-	*	-
Oldsmobile	-	*	*	-	**	*
Buick	**	**	**	**	**	*
Cadillac	-	-	-	-	-	-
All GM	**	**	**	**	**	**
VW	*		-	-	-	-
Between cities for all vehicles (Denver excluded)	**	**	**	**	**	**
Between 5-cities and Denver (all Vehicles)	**	**	**	**	**	**
Between makes for all cities (Denver excluded)	**	**	**	**	**	**

a. Chances that different makes or cities belong to same population are indicated as follows:

- \- Greater than 5 in 100. Differences not significant.
- * Between 1 and 5 in 100. Differences significant.
- ** Less than 1 in 100. Differences highly significant.

6.3 ANALYSIS OF MAKE AND CITY EFFECTS

The examination of the data was carried out sequentially. Data plots with 95 percent confidence limits were made for each of the six emittant variables: HC, CO, and NO_xC in concentration and mass units in two ways: city data for each make and make data for each city (Figures 6-1 to 6-12). The variance analysis (Table 6-3) indicates whether there is a "significant" difference attributable to say, cities, (or makes). The plot shows which cities (or makes) are responsible for the "significance" if any.

The variance analyses discussed below are given in detail in Appendix D. The results are summarized in Table 6-3. A dash means that differences between subsets (makes or cities) in the overall sample are deemed not significant because chances are greater than 5 in 100 that the subsets belong to the same population. One asterisk means differences are significant because chances are only 1 in 100 to 5 in 100 that the subsets are alike. Two asterisks means highly significant, i.e. chances are less than 1 in 100 that the subsets are alike. The significance of the differences is judged by Snedecor's F test in the analysis of variance.

In regard to confidence limits it should be noted that they represent the probable location of the true or population mean for a particular sample. If the statement is made that the 95 percent confidence limits bracket the mean, it is either completely right or completely wrong for that sample -- there is no in-between. However, there is confidence that the statements will be right 95 percent of the time. There is, however, no statistical guarantee that the true mean will be any closer to the middle of the interval than to one end or the other. There is only confidence that the true mean lies somewhere between the limits. It is difficult to be rid of the idea that the true mean is close to or even equal to the sample mean. A few random sampling (Monte Carlo) experiments will dispell the notion.

6.3.1 Comparison of Makes in Same City

Table 6-3 shows that there are statistically significant differences between makes in the same city for all but mass HC. (Even for that variable there is a highly significant effect in Detroit.)

An attempt was made to determine which makes were responsible for these statistically significant make effects for each emittant by an examination of the plots (Figures 6-1 to 6-6)

of confidence bands for each make. The resulting rough breakdown by makes (Table 6-4) is by lower emitters, higher emitters and in-between emitters on a relative basis allowing for the city-to-city differences in emittant levels, which were shown to be of statistical significance.

The objective was the discovery of makes which were higher or lower emitters in a given city based on a central value for the city for each emittant. The central value was found by choosing a line which passed through most of the 95 percent confidence bands. Makes with bands falling below the central value were termed "lower emitters". To qualify as an overall "lower emitter", the make had to be judged a lower emitter in several cities. A deliberate attempt was made to choose central lines which maintained relative make groupings in as many cities as possible. This process relies on subjective analysis but it does give a relative rank which allows for the highly significant city effects on the data. By "removing" the city effects, this type of analysis can rank the makes somewhat differently than an analysis which includes the city effects (such as the comparison of the five-city means for each make).

FIGURE 6-1

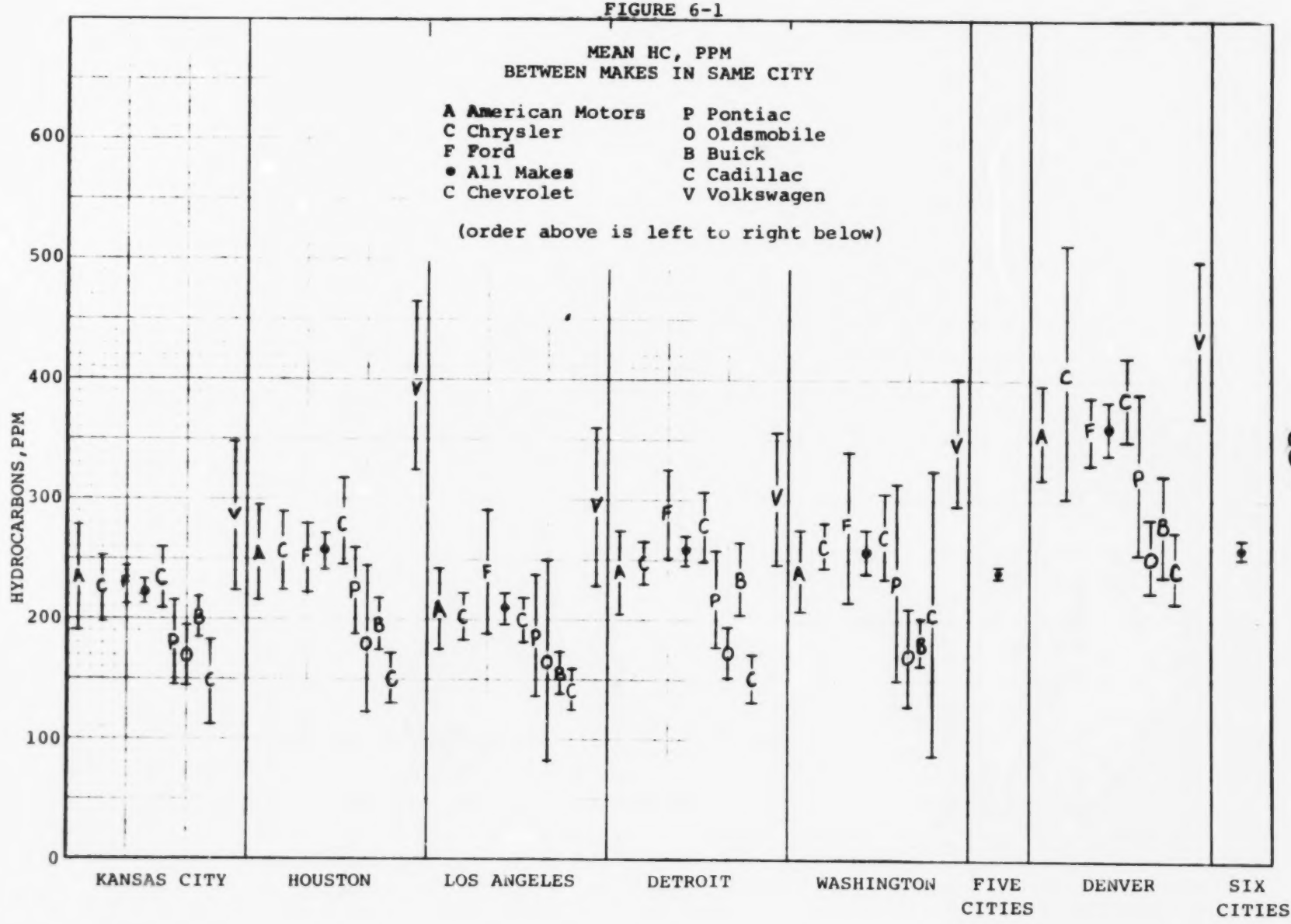
MEAN HC, PPM
BETWEEN MAKES IN SAME CITY
A American Motors
C Chrysler
F Ford
• All Makes
C Chevrolet
P Pontiac
O Oldsmobile
B Buick
C Cadillac
V Volkswagen
(order above is left to right below)
HYDROCARBONS, PPM
0
100
200
300
400
500
600
KANSAS CITY
HOUSTON
LOS ANGELES
DETROIT
WASHINGTON
FIVE CITIES
DENVER
SIX CITIES

FIGURE 6-2

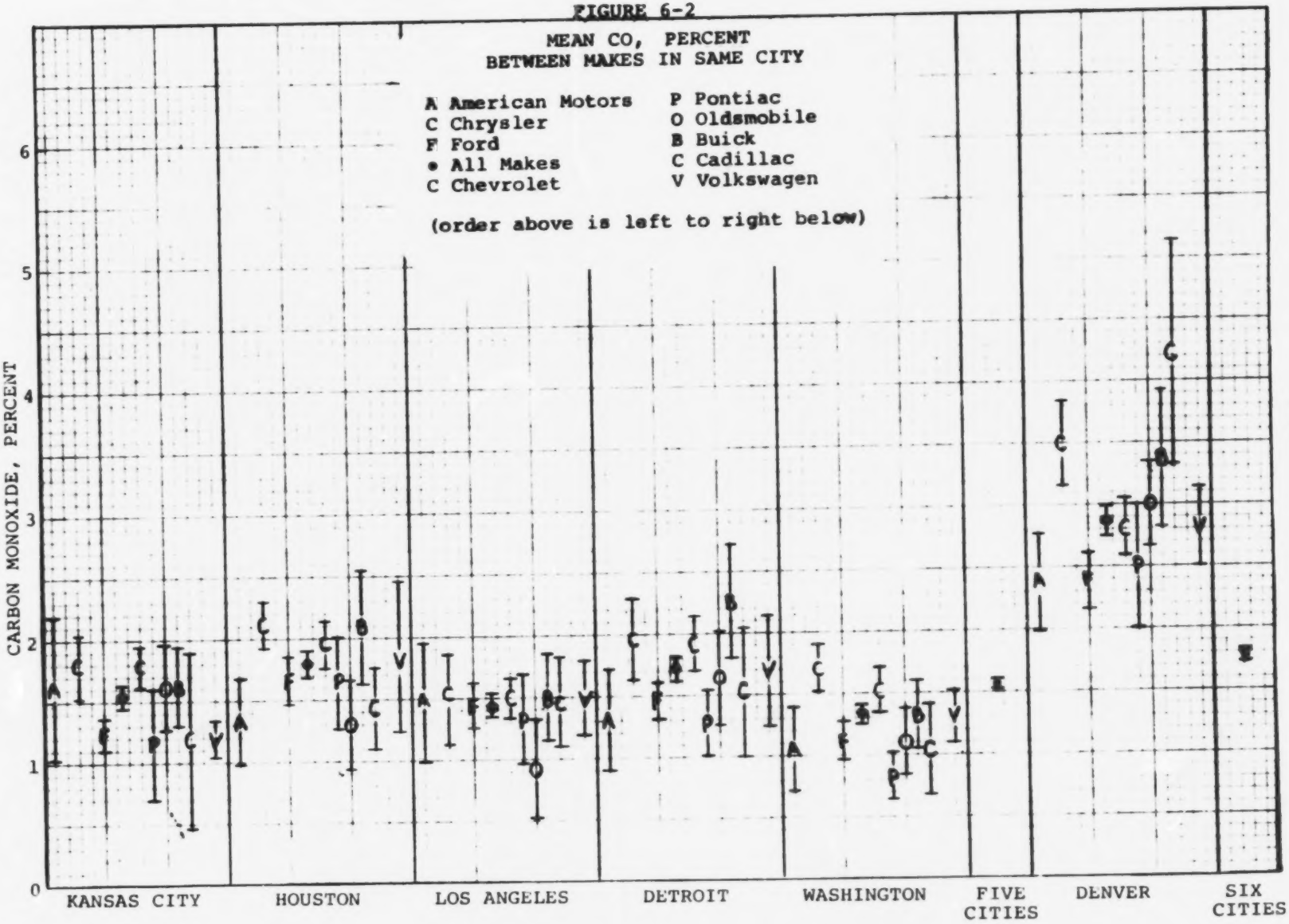
MEAN CO, PERCENT
BETWEEN MAKES IN SAME CITY
A American Motors
C Chrysler
F Ford
• All Makes
C Chevrolet
P Pontiac
O Oldsmobile
B Buick
C Cadillac
V Volkswagen
(order above is left to right below)
CARBON MONOXIDE, PERCENT
0
1
2
3
4
5
6
KANSAS CITY
HOUSTON
LOS ANGELES
DETROIT
WASHINGTON
FIVE CITIES
DENVER
SIX CITIES

FIGURE 6-3

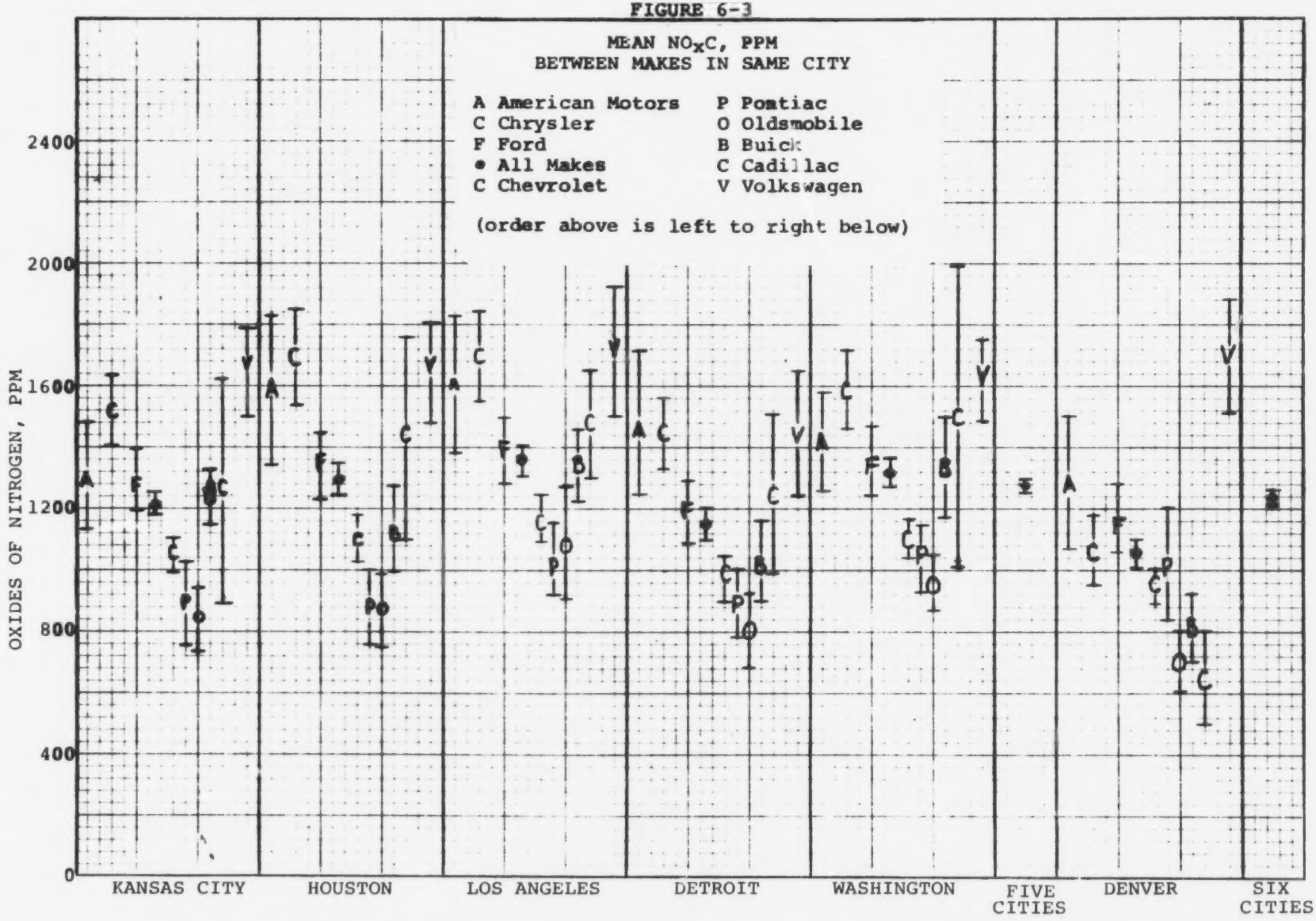
MEAN NO_xC, PPM
BETWEEN MAKES IN SAME CITY
A American Motors
C Chrysler
F Ford
• All Makes
C Chevrolet
P Pontiac
O Oldsmobile
B Buick
C Cadillac
V Volkswagen
(order above is left to right below)
OXIDES OF NITROGEN, PPM
2400
2000
1600
1200
800
400
0
KANSAS CITY
HOUSTON
LOS ANGELES
DETROIT
WASHINGTON
FIVE CITIES
DENVER
SIX CITIES

FIGURE 6-4

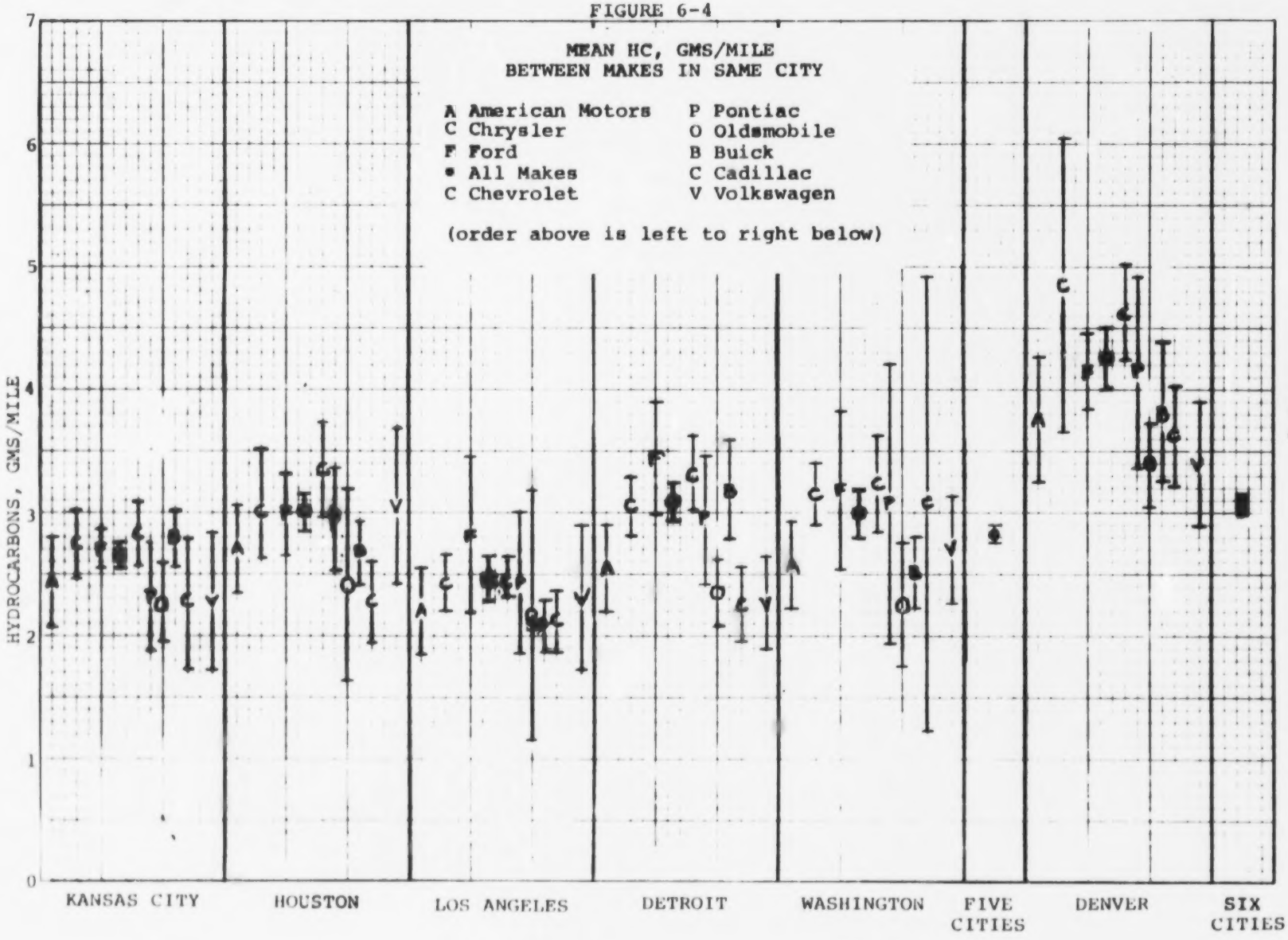
MEAN HC, GMS/MILE
BETWEEN MAKES IN SAME CITY
A American Motors
C Chrysler
F Ford
• All Makes
C Chevrolet
P Pontiac
O Oldsmobile
B Buick
C Cadillac
V Volkswagen
(order above is left to right below)
HYDROCARBONS, GMS/MILE
0
1
2
3
4
5
6
7
KANSAS CITY
HOUSTON
LOS ANGELES
DETROIT
WASHINGTON
FIVE CITIES
DENVER
SIX CITIES

FIGURE 6-5

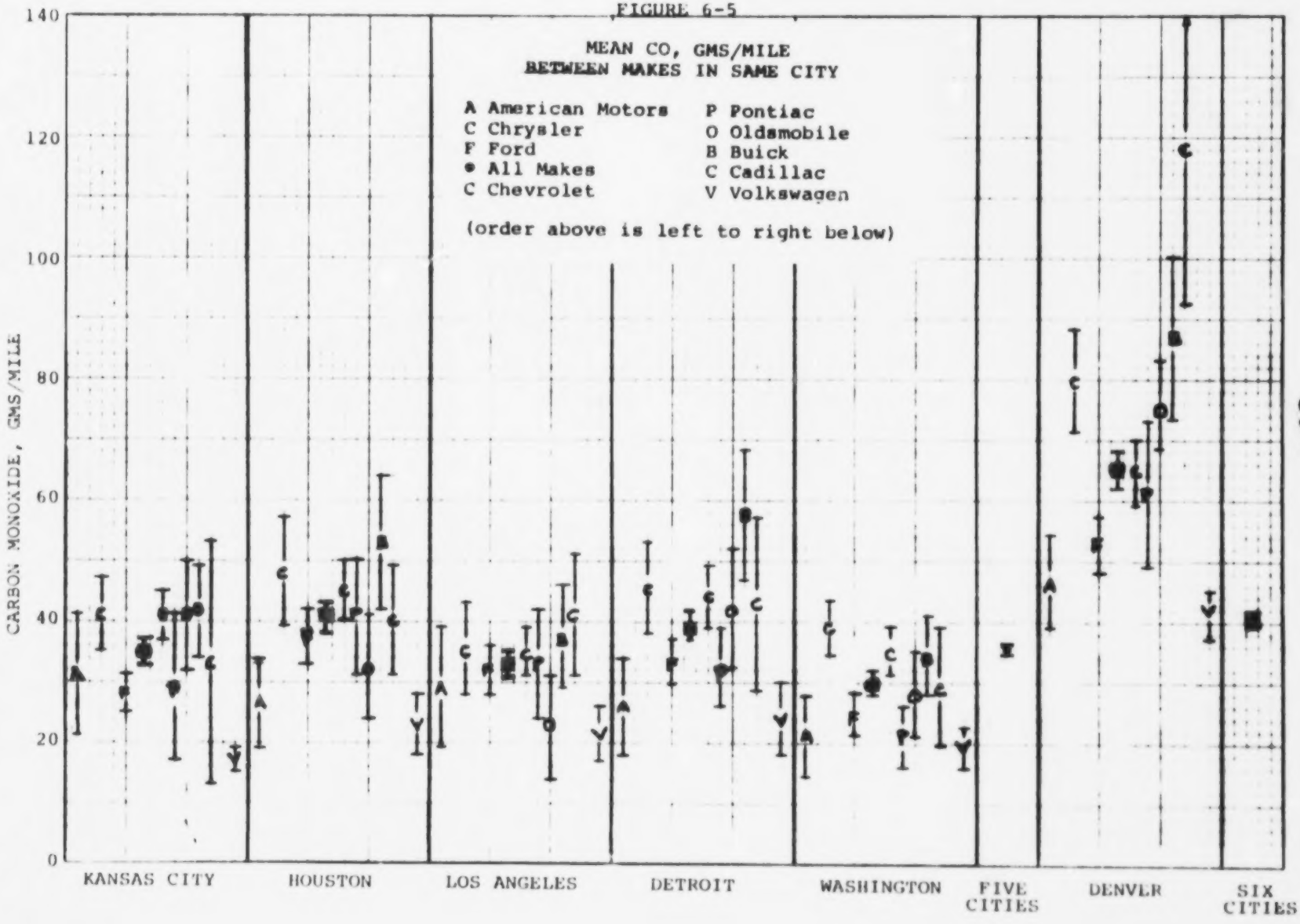
MEAN CO, GMS/MILE
BETWEEN MAKES IN SAME CITY
A American Motors
C Chrysler
F Ford
• All Makes
C Chevrolet
P Pontiac
O Oldsmobile
B Buick
C Cadillac
V Volkswagen
(order above is left to right below)
CARBON MONOXIDE, GMS/MILE
0
20
40
60
80
100
120
140
KANSAS CITY
HOUSTON
LOS ANGELES
DETROIT
WASHINGTON
FIVE CITIES
DENVER
SIX CITIES

FIGURE 6-6

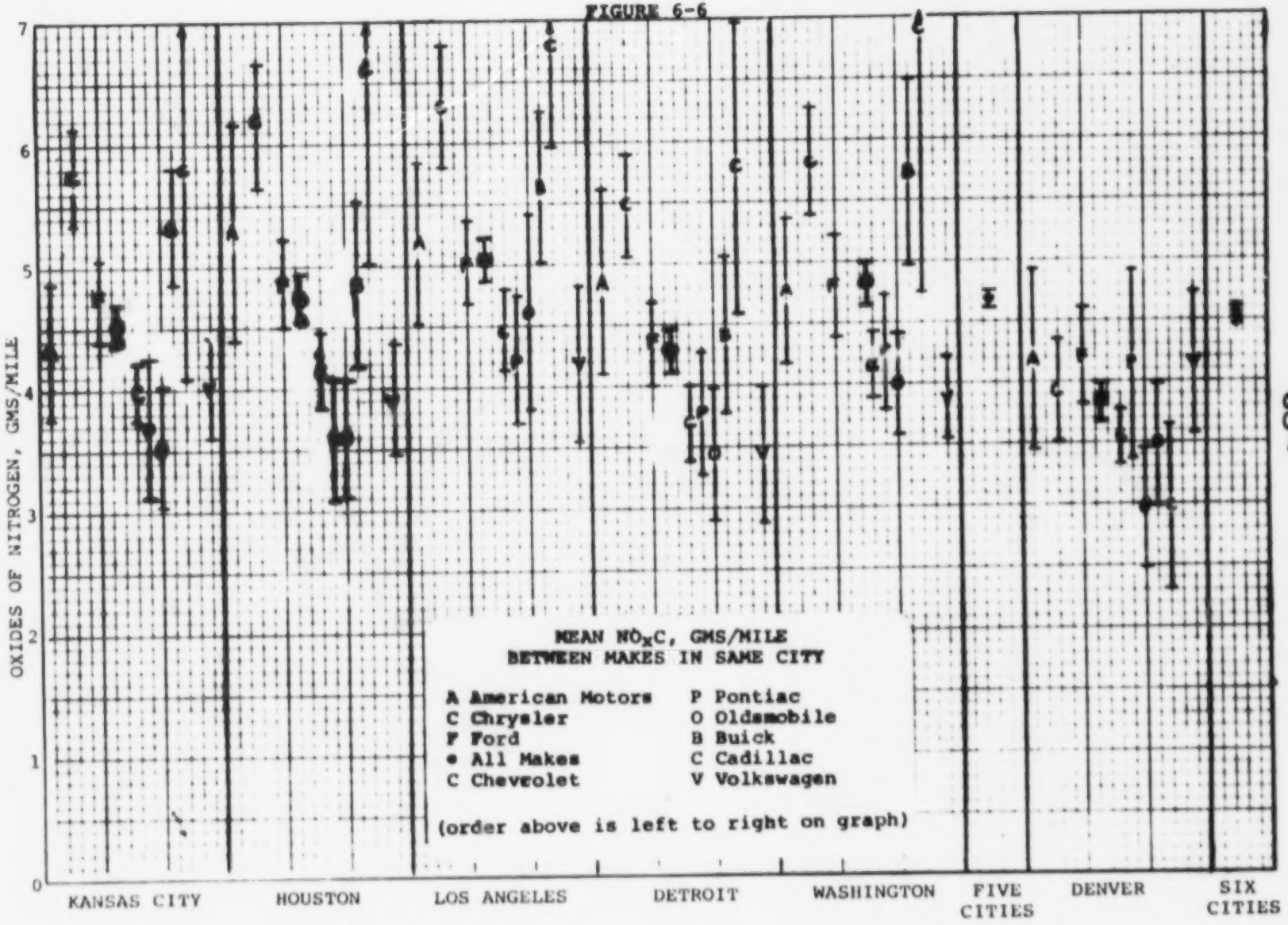

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TABLE 6-4

AN APPROXIMATE RELATIVE CLASSIFICATION OF VEHICLE MAKES[a]

	Lower Emitters	In-Between Emitters	Higher Emitters
CONCENTRATION			
HC	Buick, Cad, Olds	AMC, Chev, Chry, Ford, Pont	VW
CO	Pont	AMC, Buick, Cad, Ford, Olds, VW	Chev, Chry
NOxC	Chev, Olds, Pont	AMC, Buick, Cad, Ford	Chrys, VW
MASS			
HC	Cad, Olds	AMC, Buick, Chev, Chry, Ford, Pont VW	
CO	AMC, VW	Cad, Chry, Ford, Pont, Olds	Buick, Chev
NOxC	Chev, Olds, Pont, VW	AMC, Buick, Ford	Cad, Chry

a. Makes listed alphabetically in each group

6.3.2 Effect of Cities for Each Make

Since there is a noticable difference between makes in the same city it is necessary to evaluate possible between city effects make-by-make, rather than collectively. Denver is excluded. The variance analysis summary (Table 6-3) indicates that, considering all emission variables, there are no statistically significant city effects for AMC and Cadillac, minor effects for Pontiac and Volkswagen, larger effects for Oldsmobile, Ford and Chrysler and pronounced effects for Buick and Chevrolet. Since concentration and mass data parallel each other in this regard, only mass data are discussed below.

Table 6-5 is based on an examination of the plots (Figures 6-10, 6-11, and 6-12) for the 11 cases out of 27 where the variance analyses indicate statistically significant city effects for HC, CO and NO_x corrected mass data. Low and High designate cities which appear to be unusually low or high based on the 95 percent confidence bands. (Denver is excluded).

The variance analysis also indicates that the humidity correction factor for nitrogen oxides emissions tended to reduce between-city effects for the same make. There were significant city effects with six of the nine makes on the basis of uncorrected mass data compared to significant city effects with only three of the nine makes on the basis of corrected mass data.

FIGURE 6-7

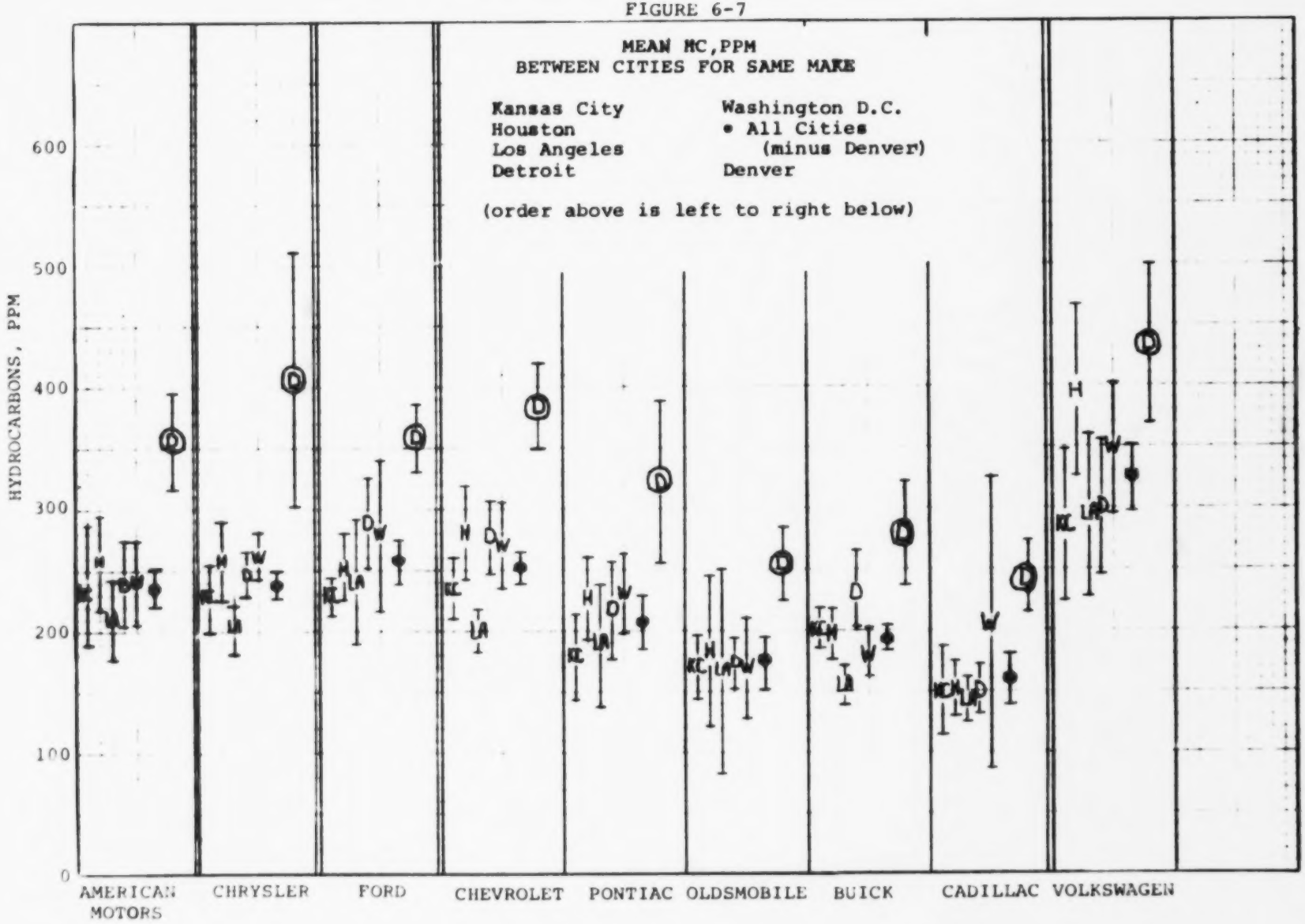

MEAN HC, PPM
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
• All Cities (minus Denver)
Denver
(order above is left to right below)
HYDROCARBONS, PPM
0
100
200
300
400
500
600
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN

FIGURE 6-8

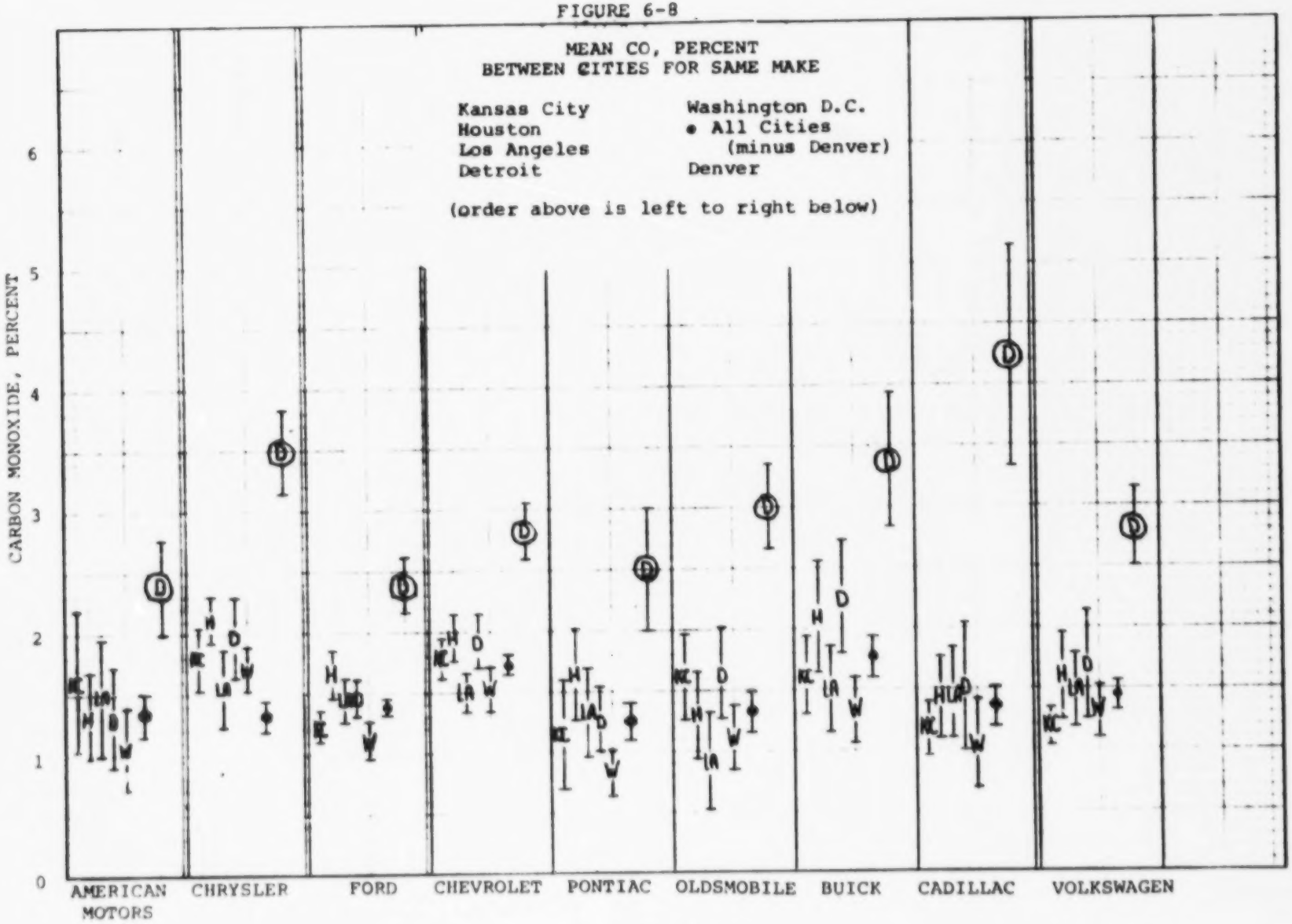

MEAN CO, PERCENT
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
• All Cities (minus Denver)
Denver
(order above is left to right below)
CARBON MONOXIDE, PERCENT
0
1
2
3
4
5
6
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN

FIGURE 6-9

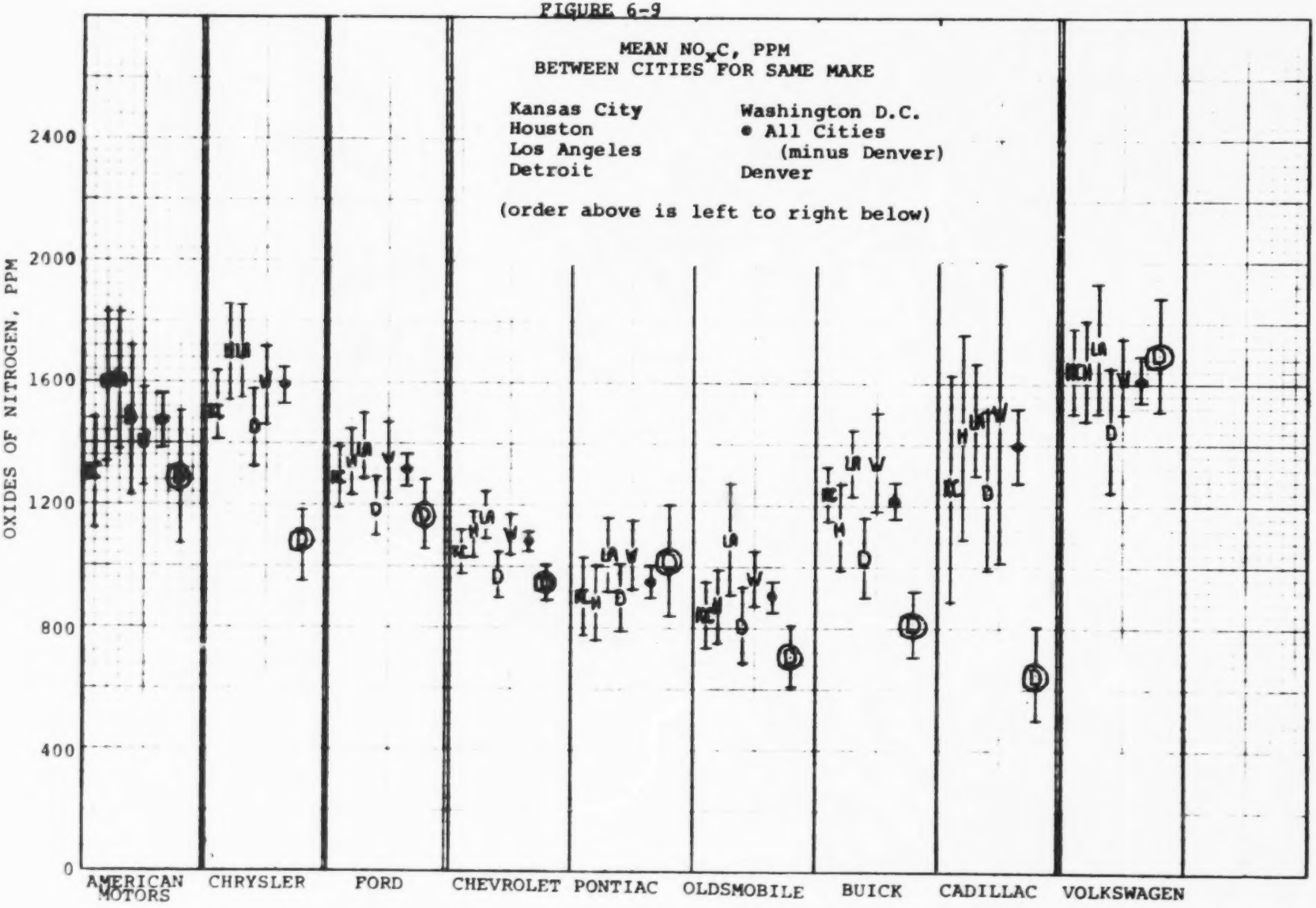

MEAN NO_xC, PPM
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
All Cities (minus Denver)
Denver
(order above is left to right below)
OXIDES OF NITROGEN, PPM
2400
2000
1600
1200
800
400
0
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN

FIGURE 6-10

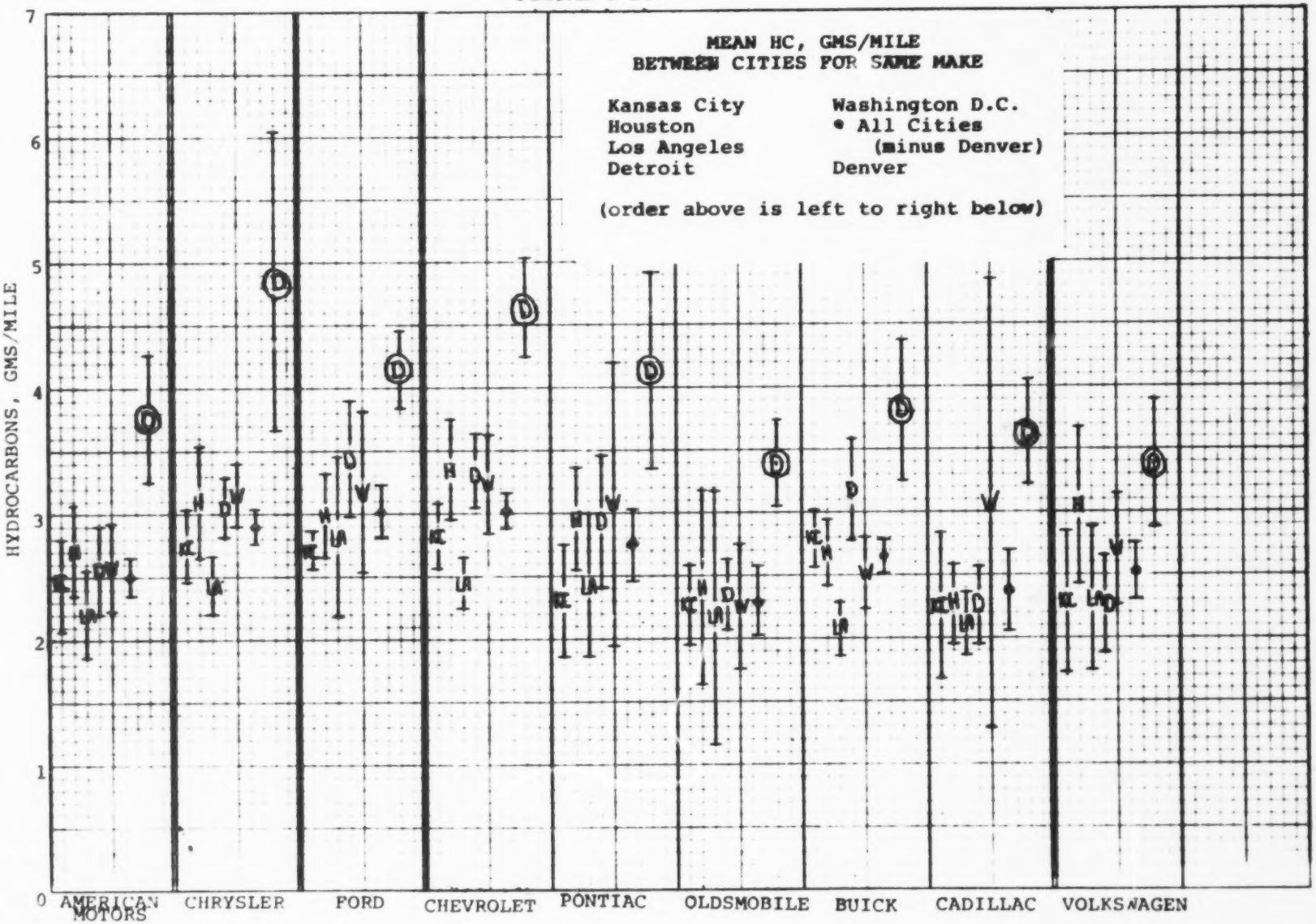

MEAN HC, GMS/MILE
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
• All Cities (minus Denver)
Denver
(order above is left to right below)
HYDROCARBONS, GMS/MILE
0
1
2
3
4
5
6
7
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN

FIGURE 6-11

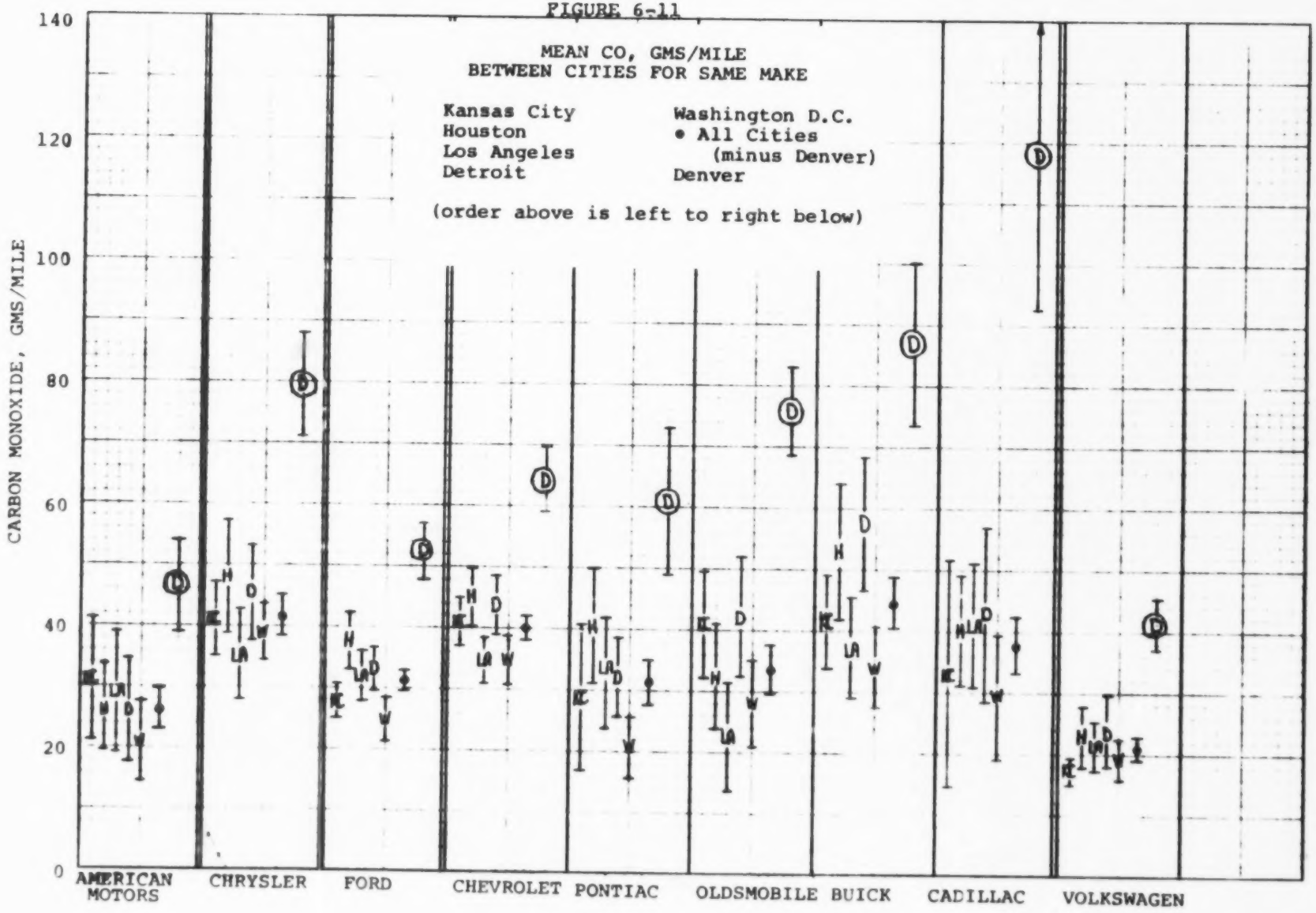

MEAN CO, GMS/MILE
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
• All Cities (minus Denver)
Denver
(order above is left to right below)
CARBON MONOXIDE, GMS/MILE
140
120
100
80
60
40
20
0
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN

FIGURE 6-12

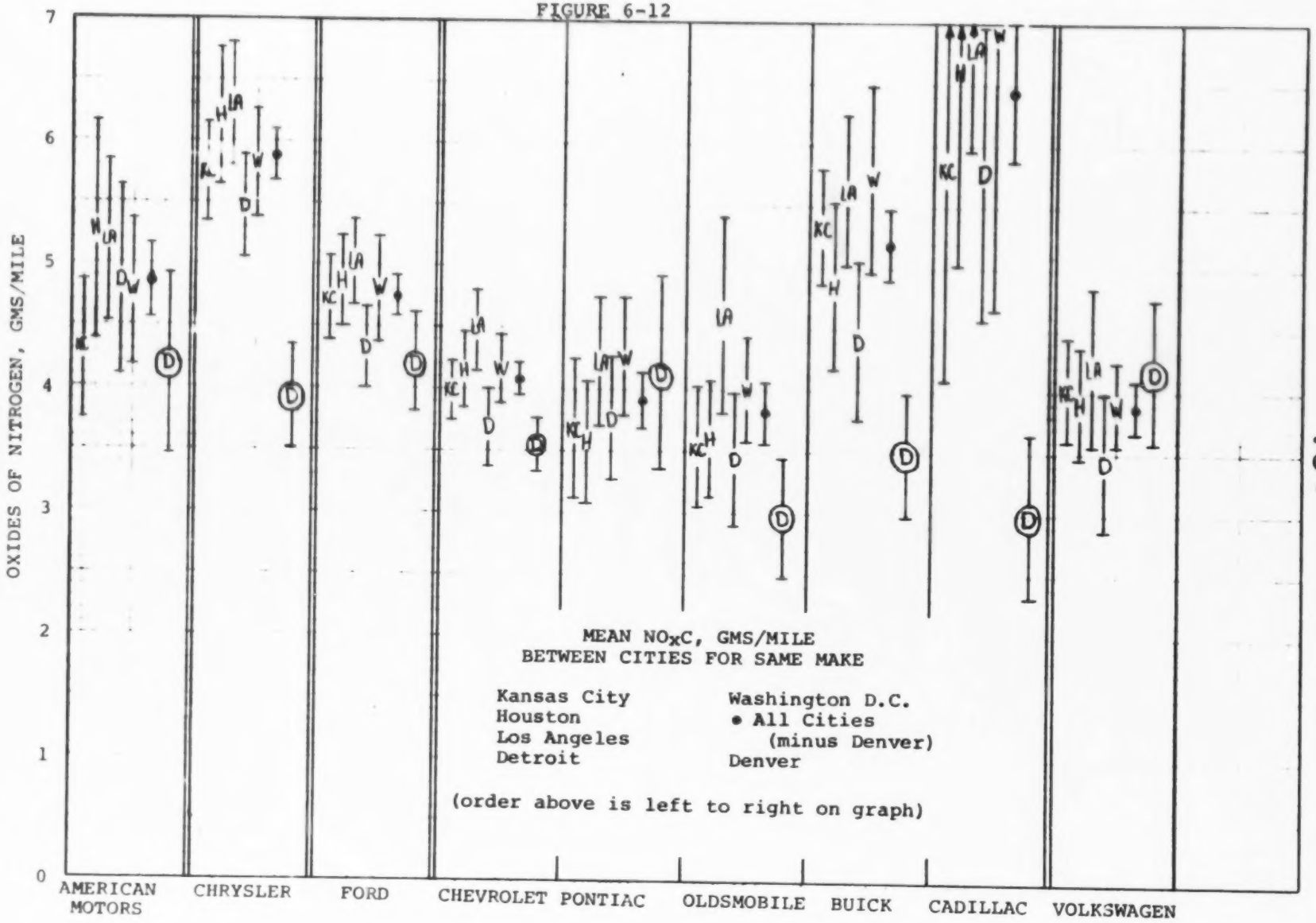

OXIDES OF NITROGEN, GMS/MILE
0
1
2
3
4
5
6
7
AMERICAN MOTORS
CHRYSLER
FORD
CHEVROLET
PONTIAC
OLDSMOBILE
BUICK
CADILLAC
VOLKSWAGEN
MEAN NOxC, GMS/MILE
BETWEEN CITIES FOR SAME MAKE
Kansas City
Houston
Los Angeles
Detroit
Washington D.C.
• All Cities (minus Denver)
Denver
(order above is left to right on graph)

Table 6-5

MASS DATA SHOWING CITY EFFECTS
(For Individual Makes)

	Significance[a]	Low Cities	High Cities
Hydrocarbons, Gm/Mile			
Buick	**	Los Angeles	Detroit
Chevrolet	**	Los Angeles	-
Chrysler	**	Los Angeles	-
Carbon Monoxice, Gm/Mile			
Buick	**	Washington	Detroit
Chevrolet	**	L.A., Wash.	Houston
Ford	**	Washington	Houston
Oldsmobile	**	Los Angeles	-
Pontiac	*	Washington	-
Oxides of Nitrogen, Gm/Mile			
Buick	*	Detroit	-
Chevrolet	**	Detroit	-
Oldsmobile	*	-	Los Angeles

a. Chance that effect is not real:

* 1 to 5%

** Less than 1%

The significantly lower HC levels in Los Angeles for Buicks, Chevrolets and Chrysler products may be related to the tightening of the California controls at the time of the tests. The all-vehicle Los Angeles average in the lowest for all six cities (2.46 gm/mile with confidence limits 2.22 to 2.64), slightly higher than the 2.2 gm/mile California and Federal standards for 1970 prototype models.

6.3.3 Effect of Cities for All Vehicles

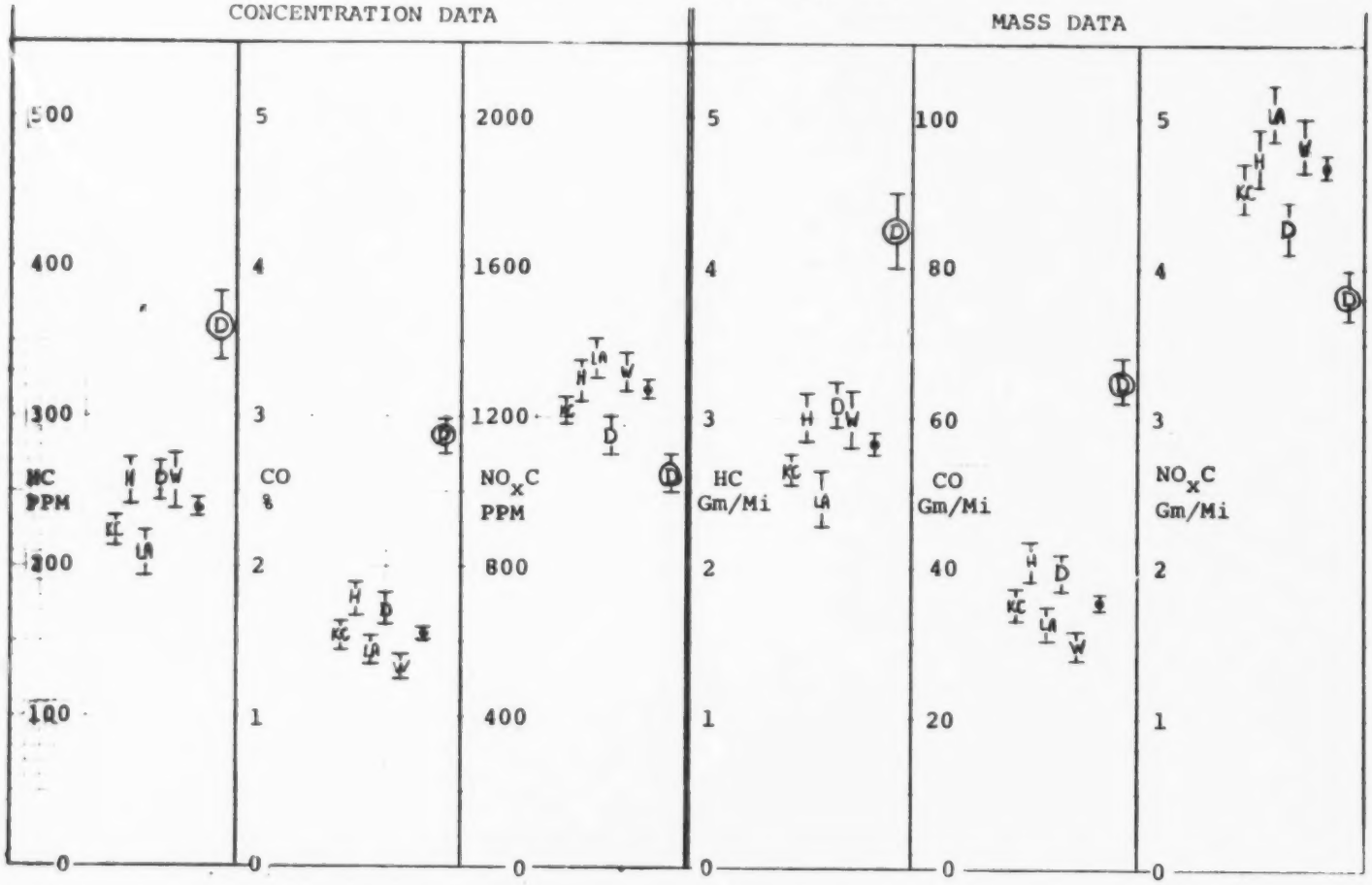
The stratified sample permits direct averaging of all data in each city as a good measure of the vehicle population values. It is evident that this general conclusion is weakened by strong city effects for some of the makes but the overall comparisons should be of value. Figure 6-13 shows for six emission variables the all-vehicle city means and the five-city average. The variance analyses show that there are highly significant differences between cities. The table given below, which is analogous to Table 6-5 for the individual makes, is based on an examination of Figure 6-13. The same cities are seen to be on the low and high sides. This is to be expected since the makes with significant city effects constitute a large part of the test fleet.

DATA SHOWING CITY EFFECTS
(for All Makes Combined)

	Low Cities	High Cities
Hydrocarbons	Los Angeles, Kansas City	Houston, Detroit
Carbon Monoxide	Los Angeles, Washington	Houston Detroit
Oxides of Nitrogen	Detroit	Los Angeles

FIGURE 6-13

ALL-VEHICLE AVERAGES FOR EACH CITY



CITIES: Kansas City, Houston, Los Angeles, Detroit, Washington, * All Cities (excluding Denver), Denver

(Order above is left to right on graph)

6.3.4 Car-to-Car Variability

The car to car variability can be assessed by examining the within-sum-of-squares terms in the analyses of variance. The values represent the variability from car-to-car of the same make tested in the same city. (They also reflect some differences attributable to different models within the same make.) The standard deviations are shown in Table 6-6 below for the 5-city data, and are presented in more detail in Appendix Tables D-20 to D-27 to show standard deviations for each city and for each make.

Table 6-6

CAR-TO-CAR VARIABILITY[a]

	5-Cities Average	Std. Dev. Car-to-Car	Std. Dev. Percent
Hydrocarbons, PPM	240	134	56
Carbon Monoxide, Percent	1.56	0.89	57
Oxides of Nitrogen, PPM	1272	415	33
Hydrocarbons, Gm/Mile	2.84	1.52	54
Carbon Monoxide, Gm/Mile	35.55	20.61	58
Oxide of Nitrogen, Gm/Mile	4.68	1.52	32

a. Based on tests on cars of the same make in the same city.

6.4 CLAYTON KEY MODE TEST AS A PREDICTOR OF FEDERAL 7-MODE COLD START TEST

Clayton KEY MODE data at idle, low speed cruise, and high speed cruise conditions were obtained for each vehicle tested. An attempt was made to see if the 7-Mode composite results for HC, CO and NO_x concentration data for all vehicles could be predicted from the KEY MODE emission level results by a linear relationship for each emittant:

$$\text{Calculated Comp.} = a + bKM_1 + c\,KM_2 + d\,KM_3$$

where Comp. represents 7-mode composite concentration data and KM_1, KM_2, KM_3 represent the concentration data from the KEY MODE test at idle, low speed cruise and high speed cruise. The empirical constants a, b, c, and d were found by the method of least squares. The overall goodness of fit was judged by the F-ratio

$$F = \frac{(SS\ (\text{mean}) - SS\ (\text{eq. fit}))\ /3}{SE\ (\text{eq. fit})}$$

where SS(mean) is the residual sum of squares about the mean, i.e.

$$SS\ (\text{mean}) = \sum (\text{Actual Comp.} - \text{Ave. Calc. Comp.})^2,$$

where SS (eq. fit) is the residual sum of squares about the linear relation,

$$SS\ (\text{eq. fit}) = \sum\ (\text{Actual Comp.} - a - bKM_1 - cKM_2 - dKM_3)^2$$

and where SE (eq. fit) is the last summation divided by the residual degrees of freedom (2094, 2094 and 2095 for the three emittants). The F-values are judged with 4 and 2094 or 2095 degrees of freedom.

At first glance it would seem that the prediction method was a good one:

OVERALL KEY MODE REGRESSION

Emittant	F	Std. Dev.	Std. Error of Fit Value	Std. Error of Fit Percent
Hydrocarbons	793	161	110	68
Carbon Monoxide	2421	109	0.51	47
Oxides of Nitrogen	588	504	372	74

The empirical constants for the equations for each emittant are given in Appendix Table F-1. The high F-values indicate a genuine reduction in variability compared with just using the average as an estimator. However, the standard errors of fit are too high for an adequate prediction method. Since the number of "error" degrees of freedom is very large, it is expected that 95 percent of the difference from the equation will be within 1.96 standard errors, or

Hydrocarbons	± 216 ppm
Carbon Monoxide	± 1.00 percent
Oxides of Nitrogen	± 729 ppm

These limits are far too wide for any type of certification purposes or even approximate predictions.

Tables showing the differences from the equations are given in Appendix F (Tables F-2, F-3 and F-4). Casual inspection showed that these differences seemed to be very one sided for the products of some car manufacturers.

For HC, American Motors, Chrysler, Ford and Volkswagen have mostly negative deviations (prediction lower than observed composite). For NO_x, American Motors, Chrysler, and Volkswagen are mostly negative but General Motors is predominately positive. A count was made of the positive and negative deviations. The results are shown in Table 6-7.

The distribution of these signs is unlikely, to say the least, if the equations for HC and NO_x are passing through all the data in a uniform way. There are a few very large deviations suggesting the presence of bad composite or KEY MODE data but it would appear unlikely that these could lead to severe bias when included in over 2000 points. (The equations were checked by rerunning them using an internal scaling scheme in the computer program - the results agreed to about six significant digits.)

Table 6-7

Signs of Differences from Equation[a]

	HYDROCARBONS				CARBON DIOXIDE				OXIDES OF NITROGEN			
	-	+	Total	Percent[b]	-	+	Total	Percent[b]	-	+	Total	Percent[b]
American Motors	118	11	129	91.5	56	73	129	43.4	85	44	129	65.9
Chrysler	298	67	363	81.9	178	185	363	49.0	255	108	363	70.2
Ford	380	100	480	79.2	215	264	479	44.9	261	218	479	54.5
General Motors	478	529	1007	47.4	420	587	1007	41.7	245	762	1007	24.3
Volkswagen	116	5	121	95.9	51	70	121	42.1	111	10	121	91.7
TOTAL	1390	712	2100	66.2	920	1179	2099	43.8	957	1142	2099	45.6

a. Composite from KEY MODE data
b. Percentage negative deviations

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6.5 RECOMMENDATIONS FOR ADDITIONAL ANALYSES

Statistical analyses performed on the data in this report are based on normal-distribution theory. It is possible, of course, that the data are not normally distributed, and that some other kind of distribution could be found to better represent the data. An analysis based on a different kind of distribution was not required in the contract, but warrants consideration for further study by the contractor or EPA. Data from surveillance programs similar to this one indicate that hydrocarbon, carbon monoxide, and perhaps nitrogen oxide concentrations may be log-normally distributed rather than normally distributed.

LIST OF APPENDIXES

APPENDIX A: Test Vehicle Information Tables

APPENDIX B: Vehicle Emission Test Data Tables

APPENDIX C: Statistical Information Tables

APPENDIX D: Variance Analysis Tables

APPENDIX E: KEY MODE Test Data Tables

APPENDIX F: KEY MODE Regression Data

APPENDIX A

TEST VEHICLE INFORMATION TABLES

1. Legend and Interpretation of Test Vehicle Information Tables.

2. Tables:
   - A-1 Kansas City
   - A-2 Houston
   - A-3 Los Angeles
   - A-4 Detroit
   - A-5 Denver
   - A-6 Washington, D.C.

LEGEND AND INTERPRETATION OF TEST VEHICLE INFORMATION TABLES

Key Words	Description
CAR NO.	This is the number used to identify each vehicle and the location where test was conducted. The first number denotes the location. 1 = Kansas City, Missouri 2 = Houston, Texas 3 = Los Angeles, California 4 = Detroit, Michigan 5 = Denver, Colorado 6 = Washington D.C.
RUN NO.	This is a sequential number assigned to each test in each city.
DATE	Date vehicle was tested.
MFG	This denotes the manufacturer of test vehicle. A = American Motors Corporation C = Chrysler Corporation F = Ford Motor Company G = General Motors V = Volkswagen See accompanying table for description of displacement classes.
YR	The model year of test vehicle.
MAKE	The make of test vehicle.
MODEL	The model of the test vehicle.
ODOMR	This indicates the odometer reading of vehicle at the beginning of test.

LEGEND AND INTERPRETATION OF TEST VEHICLE INFORMATION TABLES (CONT'D)

Key Words	Description
CID	Represents the cubic inch displacement of test vehicle.
CYL	The number of cylinders in the test vehicle.
TRN	Type of transmission in test vehicle. 0 = Automatic 3,4,5 = Manual, with the number of gears indicated
A/C	Denotes if vehicle equipped with an air conditioning system. 0 = Without air conditioning 1 = With air conditioning
FSO	Fuel shut-off. 0 = No fuel shut-off 1 = Fuel shut-off device
BBL	Represents number of carburetor venturis. (Note: A "0" represents fuel injection).
PCV	Represents positive crankcase ventilation system. 0 = Without PCV 1 = With PCV
EXH	Represents type of exhaust control device. 1 = Engine modification 2 = Air pump
EVP	Denotes if vehicle is equipped with evaporative emissions control. 0 = Without control 1 = With control
DB	Represents dry bulb temperature before test, °F.

LEGEND AND INTERPRETATION OF TEST
VEHICLE INFORMATION TABLES (CONT'D)

Key Word	Description
WB	Represents wet bulb temperature before test, °F.
BAROM	Represents barometer reading before test, in. Hg.
INRT	Represents inertia loading of vehicle.
HP	Horsepower setting of dynamometer.

NATIONAL SURVEILLANCE PROGRAM
1970 MODELS
DESCRIPTION OF DISPLACEMENT CLASSES

Mfg. Class	CID	Carb BBL	Trans
AMERICAN MOTORS			
A02	199	1V	A & M
A01	232	1V	A & M
A03	232	2V	A only
A05	304	2V	A & M
A07	360	2V	A only
A08	360	4V	M only
A09	360	4V	A only
A10	390	4V	A only
A11	390	4V	M only
CHRYSLER CORPORATION			
C10	198	1V	A & M
C11	225	1V	A & M
C12	318	2V	A & M
C15	340	4V	A & M
C13	383	2V	A only
C17	383	4V	A only
C18	383	HP4V	A & M
C14	440	4V	A only
C19	440	HP4V	A & M
C20	440	6V	A & M
FORD MOTOR COMPANY			
F30	170	1V	A & M
F31	200	1V	A & M
* F32	200	1V	A & M
F37	240	1V	A & M
F38	250	1V	A & M
F33	302	2V	A & M
F39	302	4V	M only
F34	351	2V	A & M
F40	351	4V	A & M
F41	360	2V	A & M
F35	390	2V	A only
F42	390	4V	A & M
F44	428	4V	A & M
F45	429	2V	A only
F36	429	4V	A & M
F46	429	CJ4V&SW	A & M
F47	460	4V	A only

Mfg. Class	CID	Carb BBL	Trans
GENERAL MOTORS CORPORATION			
CHEVROLET			
G51	230	1V	A & M
G52	250	1V	A & M
G56	292	1V	A & M
G53	307	2V	A & M
G57	350	2V	A & M
G55	350	4V	A & M
G59	400	2V	A & M
G60	402	4V	A & M
G63	402	HP4V	M only
G64	[illegible]	4V	A & M
G65	454	HP4V	M only
PONTIAC			
G61	350	2V	A & M
G62	400	2V	A only
G68	400	4V	A & M
G70	455	4V	A & M
OLDSMOBILE			
G66	350	2V	A & M
G72	350	4V	A & M
G73	455	2V	A only
G67	455	4V	A & M
BUICK			
G74	350	2V	A only
G71	350	4V	A only
G75	455	4V	A only
CADILLAC			
G77	472	4V	A only
G78	500	4V	A only
VOLKSWAGEN			
V82	97	FI	A & M
V83	97	1V	A & M
V84	103	FI	M only

* Maverick only

TABLE A-1

Kansas City

KANSAS CITY — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
120092	001298	02/03/71	A	1	70	AMER	HORNE	9587	232	6	0	0	0	1	1	1	0	76	52	29.73	3000	8
120100	001310	02/06/71	A	1	70	AMER	HORNE	7268	232	6	3	1	0	1	1	1	0	74	50	30.10	3000	8
120222	001460	03/08/71	A	1	70	AMER	GREML	7397	232	6	0	0	0	1	1	1	0	70	47	30.14	3000	8
120243	001520	03/19/71	A	1	70	AMER	GREML	11712	232	6	3	1	0	1	1	1	0	73	51	29.95	3000	8
120254	001554	03/25/71	A	1	70	AMER	HORNE	12233	232	6	0	1	0	1	1	1	0	72	53	29.99	3000	8
120256	001556	03/26/71	A	1	70	AMER	GREML	8855	232	6	3	1	0	1	1	1	0	75	53	30.15	3000	8
120265	001571	03/30/71	A	1	70	AMER	GREML	6587	232	6	0	1	0	1	1	1	0	76	55	29.90	3000	8
120273	001583	04/01/71	A	1	70	AMER	GREML	12114	232	6	0	1	0	1	1	1	0	73	55	29.80	3000	8
120280	001599	04/03/71	A	1	70	AMER	GREML	9144	232	6	0	0	0	1	1	1	0	71	51	30.10	3000	8
120198	001421	02/27/71	A	2	70	AMER	GREML	12965	199	6	0	0	0	1	1	1	0	78	50	29.90	3000	8
120401	001715	09/22/71	A	2	70	AMER	GREML	19192	199	6	3	0	0	1	1	1	0	69	63	30.13	3000	8
120242	001519	03/19/71	A	3	70	AMER	HORNE	9389	232	6	0	0	0	2	1	1	0	73	51	29.90	3000	8
120274	001584	04/01/71	A	3	70	AMER	HORNE	13649	232	8	0	1	0	2	1	1	0	73	55	29.85	3000	8
120173	001397	02/22/71	A	5	70	AMER	JAVEL	12862	304	8	0	1	0	2	1	1	0	72	54	29.65	3500	8
120245	001522	03/19/71	A	5	70	AMER	AMBAS	11737	304	8	0	1	0	2	1	1	0	73	51	29.95	4000	8
120246	001524	03/22/71	A	5	70	AMER	REBEL	6547	304	8	0	1	0	2	1	1	0	70	53	30.14	4000	8
120038	001152	12/22/70	A	7	70	AMER	JAVEL	8359	360	8	0	1	0	2	1	1	0	74	52	30.30	3500	9
120044	001231	01/15/71	A	7	70	AMER	AMBAS	9241	360	8	0	1	0	2	1	1	0	77	53	30.58	4000	9
120239	001499	03/17/71	A	7	70	AMER	AMBAS	10002	360	8	0	1	0	2	1	1	0	74	54	30.15	4000	9
120304	001663	04/22/71	A	11	70	AMER	REBEL	8103	390	8	4	1	0	4	1	2	0	70	54	29.67	4000	9
120156	001375	02/18/71	C	10	70	PLYM	DUSTE	10999	198	6	3	1	0	1	1	1	0	78	54	29.80	3000	8
120253	001560	03/27/71	C	11	70	PLYM	DUSTE	4151	225	6	0	1	0	1	1	1	0	78	57	29.57	3000	8
120427	001757	10/01/71	C	10	70	PLYM	DUSTE	18336	198	6	3	0	0	1	1	1	0	73	65	30.20	3000	8
120429	001796	10/15/71	C	10	70	PLYM	DUSTE	17009	198	6	3	0	0	1	1	1	0	76	69	30.06	3000	8
120035	001212	01/13/71	C	11	70	PLYM	DUSTE	5201	225	6	3	0	0	1	1	1	0	72	52	30.36	3500	8
120067	001267	01/27/71	C	11	70	PLYM	DUSTE	4335	225	6	0	1	0	1	1	1	0	75	50	30.30	3500	8
120070	001270	01/28/71	C	11	70	PLYM	DUSTE	11240	225	6	0	1	0	1	1	1	0	77	51	30.23	3500	8
120081	001284	02/01/71	C	11	70	PLYM	DUSTE	1350	225	6	0	1	0	1	1	1	0	74	51	30.53	3500	8
120082	001285	02/01/71	C	11	70	PLYM	DUSTE	2107	225	6	3	0	0	1	1	1	0	74	51	30.53	3500	8
120088	001294	02/03/71	C	11	70	PLYM	VALIA	8524	225	6	0	1	0	1	1	1	0	75	52	30.30	3500	8
120097	001307	02/05/71	C	11	70	PLYM	VALIA	6059	225	6	0	1	0	1	1	1	0	72	49	29.75	3500	8
120119	001327	02/10/71	C	11	70	PLYM	DUSTE	4536	225	6	0	1	0	1	1	1	0	73	50	30.00	3500	8
120124	001335	02/11/71	C	11	70	PLYM	DUSTE	8610	225	6	0	0	0	1	1	1	0	74	52	29.65	3500	8
120136	001347	02/13/71	C	11	70	PLYM	VALIA	9350	225	6	0	0	0	1	1	1	0	72	50	30.25	3500	8
120138	001349	02/13/71	C	11	70	DODG	DART	14206	225	6	0	1	0	1	1	1	0	72	50	30.25	3500	8
120143	001353	02/13/71	C	11	70	PLYM	VALIA	7666	225	6	0	0	0	1	1	1	0	72	50	30.25	3500	8
120157	001376	02/18/71	C	11	70	PLYM	DUSTE	5784	225	6	0	0	0	1	1	1	0	78	54	29.80	3500	8
120206	001437	03/02/71	C	11	70	DODG	DART	8984	225	6	0	1	0	1	1	1	0	78	56	30.33	3500	8
120237	001482	03/13/71	C	11	70	PLYM	VALIA	12705	225	6	0	1	0	1	1	1	0	70	51	29.44	3500	8
120004	001144	12/19/70	C	12	70	PLYM	FURY	24732	318	8	0	1	0	2	1	1	0	72	53	30.84	4500	9
120012	001161	12/23/70	C	12	70	DODG	CORON	8103	318	8	0	1	0	2	1	1	0	74	51	30.65	3500	9
120014	001165	12/24/70	C	12	70	PLYM	FURY	6355	318	8	0	1	0	2	1	1	0	74	53	30.67	4500	9
120015	001162	12/24/70	C	12	70	PLYM	FURY	5792	318	8	0	1	0	2	1	1	0	75	53	30.67	4500	9
120016	001168	12/24/70	C	12	70	PLYM	SATEL	6220	318	8	0	1	0	2	1	1	0	75	53	30.55	3500	9
120106	001314	02/08/71	C	12	70	PLYM	FURY	7057	318	8	0	1	0	2	1	1	0	72	49	30.15	4500	9
120110	001320	02/09/71	C	12	70	PLYM	DUSTE	4433	318	8	0	1	0	2	1	1	0	68	47	30.30	3500	9
120111	001321	02/09/71	C	12	70	PLYM	FURY	6383	318	8	0	1	0	2	1	1	0	68	47	30.30	4500	9
120112	001322	02/09/71	C	12	70	PLYM	SATEL	16802	318	8	0	1	0	2	1	1	0	68	47	30.30	3500	9
120115	001325	02/10/71	C	12	70	PLYM	DUSTE	4704	318	8	0	1	0	2	1	1	0	73	50	29.90	3500	9
120129	001339	02/12/71	C	12	70	DODG	CHARG	10071	318	8	0	1	0	2	1	1	0	76	54	30.20	4000	9

1970 VEHICLES

KANSAS CITY CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
120158	001377	02/18/71	C12	70	PLYM	FURY	12121	318	8	0	1	0	2	1	1	0	78	54	29.55	4500	9
120179	001403	02/24/71	C12	70	DODG	D-100	12441	318	8	0	0	0	2	1	1	0	75	52	29.80	4000	9
120200	001423	02/27/71	C12	70	PLYM	FURY	11889	318	8	0	1	0	2	1	1	0	78	50	29.90	4500	9
120238	001492	03/16/71	C12	70	PLYM	FURY	10071	318	8	0	0	0	2	1	1	0	76	51	30.13	4500	9
120286	001624	04/08/71	C12	70	PLYM	FURY	10977	318	8	0	1	0	2	1	1	0	76	54	29.63	4500	9
120301	001660	04/22/71	C12	70	DODG	CHALL	9827	318	8	0	1	0	2	1	1	0	70	54	29.63	3500	9
120310	001673	04/26/71	C12	70	DODG	CHALL	8476	318	8	0	0	0	2	1	1	0	75	55	29.71	3500	9
120320	001684	04/28/71	C12	70	DODG	CORON	7001	318	8	0	1	0	2	1	1	0	69	53	29.76	3500	9
120328	001692	05/03/71	C12	70	DODG	CORON	8885	318	8	0	1	0	2	1	1	0	69	53	30.18	3500	9
120329	001693	05/03/71	C12	70	PLYM	DUSTE	5515	318	8	0	1	0	2	1	1	0	69	53	30.18	3500	9
120005	001140	12/18/70	C13	70	PLYM	PLYMO	16401	383	8	0	1	0	2	1	1	0	74	52	30.25	4500	11
120007	001151	12/22/70	C13	70	PLYM	FURY	8723	383	8	0	1	0	2	1	1	0	74	52	30.30	4500	11
120011	001160	12/23/70	C13	70	DODG	POLAR	8805	383	8	0	1	0	2	1	1	0	74	51	30.66	4500	11
120170	001390	02/20/71	C13	70	DODG	CHARG	14841	383	8	0	1	0	2	1	1	0	74	54	29.[illegible]	4000	9
120176	001400	02/22/71	C13	70	DODG	POLAR	11445	383	8	0	1	0	2	1	1	0	72	54	29.05	4500	11
120180	001404	02/24/71	C13	70	DODG	POLAR	14571	383	8	0	1	0	2	1	1	0	75	52	29.80	4500	11
120216	001454	03/04/71	C13	70	PLYM	FURY	6712	383	8	0	1	0	2	1	1	0	72	51	29.64	4500	11
120247	001532	03/23/71	C13	70	PLYM	FURY	9318	383	8	0	1	0	2	1	1	0	70	50	30.32	4500	11
120248	001542	03/24/71	C13	70	PLYM	FURY	7997	383	8	0	1	0	2	1	1	0	74	51	30.22	4500	11
120253	001553	03/25/71	C13	70	PLYM	FURY	9882	383	8	0	1	0	2	1	1	0	73	52	30.00	4500	11
120293	001640	04/16/71	C13	70	PLYM	FURY	11566	383	8	0	1	0	2	1	1	0	71	53	29.65	4500	11
120315	001679	04/27/71	C13	70	CHRY	NEWPO	12254	383	8	0	1	0	2	1	1	0	69	61	29.45	4500	11
120244	001521	03/19/71	C14	70	CHRY	IMPER	12300	440	8	0	1	0	4	1	1	0	73	51	29.95	5000	11
120269	001577	03/31/71	C14	70	CHRY	300	11899	440	8	0	1	0	4	1	1	0	69	51	29.43	5000	11
120426	001771	10/07/71	C14	70	CHRY	300	13030	440	8	0	1	0	4	1	1	0	73	67	30.28	5000	11
120235	001477	03/12/71	C15	70	PLYM	DUSTE	11369	340	8	0	0	0	4	1	1	0	69	51	29.63	3500	8
120137	001350	02/13/71	C17	70	CHRY	NEWPO	14157	383	8	0	1	0	4	1	1	0	72	50	30.25	4500	11
120223	001461	03/08/71	C17	70	PLYM	ROADR	4477	383	8	0	1	0	4	1	1	0	70	47	30.03	4000	9
120438	001813	10/21/71	C18	70	PLYM	BARRA	26319	383	8	4	0	0	4	1	1	0	74	68	30.02	4000	9
120422	001761	10/07/71	C19	70	PLYM	GTX	18193	440	8	0	0	0	4	1	1	0	73	65	30.30	4000	9
120026	001196	01/03/71	F30	70	FORD	MAVER	8265	170	6	3	0	0	1	1	1	0	75	54	30.18	2750	4
120409	001798	10/16/71	F30	70	FORD	MAVER	14117	170	6	3	0	0	1	1	1	0	73	66	30.00	2750	4
120435	001721	09/23/71	F30	70	FORD	MAVER	15399	170	6	3	0	0	1	1	1	0	72	64	30.18	2750	4
120436	001804	10/18/71	F30	70	FORD	MAVER	14835	170	6	0	0	0	1	1	1	0	74	67	30.12	2750	4
120129	001340	02/12/71	F31	70	FORD	FALCO	10914	200	6	0	0	0	1	1	1	0	76	54	30.22	3000	8
120252	001552	03/25/71	F31	70	FORD	MUSTA	8939	200	6	3	0	0	1	1	1	0	72	53	30.00	3000	8
120132	001344	02/12/71	F32	70	FORD	MAVER	9588	200	6	0	0	0	1	1	1	0	76	54	30.20	2750	4
120159	001382	02/19/71	F32	70	FORD	MAVER	13650	200	6	0	1	0	1	1	1	0	75	52	29.20	2750	4
120181	001405	02/24/71	F32	70	FORD	MAVER	8266	200	6	0	1	0	1	1	1	0	75	52	29.80	2750	4
120191	001414	02/26/71	F32	70	FORD	MAVER	5229	200	6	0	0	0	1	1	1	0	78	52	29.25	2750	4
120220	001431	03/05/71	F32	70	FORD	MAVER	12504	200	6	0	0	0	1	1	1	0	75	53	29.45	2750	4
120250	001550	03/25/71	F32	70	FORD	MAVER	9372	200	6	3	0	0	1	1	1	0	72	53	30.03	2750	4
120267	001575	03/30/71	F32	70	FORD	MAVER	13341	200	6	0	0	0	1	1	1	0	76	55	29.70	2750	4
120017	001163	12/24/70	F33	70	FORD	MUSTA	9054	302	8	0	1	0	2	1	1	0	75	53	30.67	3500	8
120019	001164	12/24/70	F33	70	FORD	MUSTA	6030	302	8	0	1	0	2	1	1	0	74	53	30.67	3500	8
120047	001239	01/20/71	F33	70	FORD	TORIN	8169	302	8	0	1	0	2	1	1	0	74	53	30.02	4000	8
120091	001297	02/03/71	F33	70	MERC	MONTG	10295	302	8	0	1	0	2	1	1	0	76	52	30.00	3500	8
120093	001300	02/04/71	F33	70	FORD	MUSTA	10301	302	8	0	1	0	2	1	1	0	77	53	29.73	3500	8
120114	001324	02/10/71	F33	70	FORD	F-100	14399	302	8	0	0	0	2	1	1	0	73	50	29.93	4000	8
120148	001363	02/16/71	F33	70	FORD	TORIN	9632	302	8	0	1	0	2	1	1	0	76	51	29.65	3500	8

KANSAS / IV CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
						1976 VEHICLES															
120165	001385	02/20/71	F33	70	FORD	TORIN	8961	302	8	0	1	0	2	1	1	0	73	54	29.90	3500	8
120168	001388	02/20/71	F33	70	FORD	TORIN	12449	302	8	0	1	0	2	1	1	0	74	53	29.95	3500	8
120172	001396	02/22/71	F33	70	FORD	MUSTA	5968	302	8	3	0	0	2	1	1	0	72	54	29.02	3500	8
120177	001401	02/23/71	F33	70	FORD	MUSTA	14826	302	8	0	1	0	2	1	1	0	71	55	29.68	3500	8
120193	001407	02/25/71	F33	70	FORD	TORIN	13479	302	8	0	1	0	2	1	1	0	77	50	29.55	3500	8
120185	001409	02/25/71	F33	70	FORD	CUSTO	6576	302	8	0	0	0	2	1	1	0	77	50	29.55	4000	8
120186	001372	02/26/71	F33	70	FORD	TORIN	8166	302	8	0	1	0	2	1	1	0	78	52	29.05	3500	8
120202	001425	03/01/71	F33	70	FORD	MUSTA	11492	302	8	0	1	0	2	1	1	0	74	52	29.93	3500	8
120277	001591	04/02/71	F33	70	FORD	FAIRL	7724	302	8	3	0	0	2	1	1	0	69	49	30.10	3500	8
120283	001607	04/05/71	F33	70	FORD	FAIRL	9104	302	8	0	1	0	2	1	1	0	71	50	30.49	3500	8
120033	001206	01/12/71	F34	70	FORD	GALAX	4188	351	8	0	1	0	2	1	1	0	73	51	30.75	4000	9
120079	001282	02/01/71	F34	70	FORD	GALAX	15670	351	8	0	1	0	2	1	1	0	72	49	30.48	4000	9
120086	001290	02/02/71	F34	70	FORD	LTD	7721	351	8	0	1	0	2	1	1	0	75	52	30.30	4000	9
120147	001360	02/16/71	F34	70	MERC	CYCLO	9398	351	8	0	0	0	2	1	1	0	76	51	29.65	4000	9
120155	001374	02/18/71	F34	70	FORD	CUSTO	7967	351	8	0	1	0	2	1	1	0	78	54	29.85	4000	9
120196	001419	02/23/71	F34	70	FORD	TORIN	6928	351	8	0	1	0	2	1	1	0	75	53	29.88	4000	9
120204	001427	03/01/71	F34	70	FORD	LTD	14308	351	8	0	1	0	2	1	1	0	74	52	29.95	4000	9
120218	001456	03/05/71	F34	70	FORD	GALAX	10727	351	8	0	1	0	2	1	1	0	75	53	29.47	4000	9
120224	001462	03/08/71	F34	70	FORD	GALAX	11270	351	8	0	1	0	2	1	1	0	78	50	30.00	4000	9
120226	001465	03/09/71	F34	70	MERC	COUGA	12668	351	8	0	1	0	2	1	1	0	74	58	29.80	3500	9
120233	001474	03/11/71	F34	70	FORD	GALAX	14160	351	8	0	1	0	2	1	1	0	77	52	29.65	4000	9
120263	001569	03/30/71	F34	70	FORD	GALAX	6061	351	8	0	1	0	2	1	1	0	76	55	29.90	4000	9
120268	001576	03/31/71	F34	70	FORD	GALAX	7647	351	8	0	1	0	2	1	1	0	69	51	29.45	4000	9
120270	001578	03/31/71	F34	70	FORD	GALAX	6134	351	8	0	1	0	2	1	1	0	71	52	29.39	4000	9
120271	001579	03/31/71	F34	70	FORD	CUSTO	5642	351	8	0	1	0	2	1	1	0	71	51	29.30	4000	9
120272	001580	03/31/71	F34	70	FORD	LTD	8181	351	8	0	1	0	2	1	1	0	71	52	29.30	4000	9
120279	001598	04/03/71	F34	70	FORD	GALAX	8170	351	8	0	1	0	2	1	1	0	71	50	30.10	4000	9
120282	001606	04/05/71	F34	70	FORD	LTD	9662	351	8	0	1	0	2	1	1	0	71	50	30.44	4000	9
120297	001656	04/20/71	F34	70	FORD	GALAX	4319	351	8	0	1	0	2	1	1	0	74	64	29.65	4000	9
120300	001659	04/21/71	F34	70	FORD	GALAX	4738	351	8	0	1	0	2	1	1	0	68	57	29.55	4000	9
120182	001406	02/25/71	F35	70	FORD	GALAX	14539	390	8	0	1	0	2	1	1	0	77	50	29.55	4500	11
120187	001410	02/26/71	F35	70	FORD	GALAX	9481	390	8	0	1	0	2	1	1	0	78	52	29.08	4500	11
120190	001413	02/25/71	F35	70	FORD	GALAX	12185	390	8	0	1	0	2	1	1	0	78	52	29.20	4500	11
120260	001565	03/29/71	F35	70	FORD	GALAX	6374	390	8	0	1	0	2	1	1	0	72	54	30.21	4500	11
120261	001566	03/29/71	F35	70	FORD	LTD	14355	390	8	0	1	0	2	1	1	0	72	54	30.22	4500	11
120275	001585	04/01/71	F35	70	FORD	LTD	13825	390	8	0	1	0	2	1	1	0	73	55	29.93	4500	11
120276	001586	04/01/71	F35	70	FORD	LTD	5890	351	8	0	1	0	2	1	1	0	73	55	29.95	4500	11
120299	001658	04/20/71	F35	70	FORD	GALAX	5413	390	8	0	1	0	2	1	1	0	74	64	29.62	4500	11
120313	001676	04/27/71	F35	70	FORD	FORD	8302	390	8	0	1	0	2	1	1	0	69	61	29.43	4500	11
120319	001683	04/28/71	F35	70	FORD	LTD	11393	390	8	0	1	0	2	1	1	0	69	53	29.71	4500	11
120326	001690	04/30/71	F35	70	FORD	GALAX	13175	390	8	0	1	0	2	1	1	0	69	52	30.00	4500	11
120118	001329	02/11/71	F36	70	FORD	GALAX	14096	429	8	0	1	0	4	1	1	0	75	52	29.56	4500	11
120296	001654	04/20/71	F36	70	FORD	THUND	14936	429	8	0	1	0	4	1	1	0	74	64	29.65	5000	11
120306	001667	04/26/71	F36	70	FORD	THUND	10340	429	8	0	1	0	4	1	1	0	75	55	29.71	5000	11
120410	001762	10/07/71	F37	70	FORD	FORD	20953	240	6	0	0	0	1	1	1	0	74	66	30.30	4000	8
120536	001819	10/25/71	F37	70	FORD	ECONO	29514	240	6	3	0	0	1	1	1	0	70	62	30.06	4000	8
120161	001380	02/19/71	F38	70	FORD	MUSTA	5759	250	6	0	0	0	1	1	1	0	75	52	29.25	3500	8
120289	001633	04/14/71	F38	70	FORD	MAVER	6017	250	6	0	1	0	1	1	1	0	73	55	30.28	3000	8
120324	001688	04/29/71	F38	70	FORD	MAVER	13825	250	6	0	0	0	1	1	1	0	69	55	29.87	3000	8
120213	001447	03/04/71	F39	70	FORD	MUSTA	9556	302	8	4	0	0	4	1	2	0	74	51	29.95	3500	8

KANSAS CITY — 1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	CODMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	DB	WB	BAROM	INRT	HP
120288	001632	04/14/71	F40	70	MERC	CYCLO	11076	351	8	0	0	0	4	1	1	0	73	55	30.25	4000	9
120307	001668	04/26/71	F40	70	FORD	TORIN	8154	351	8	0	1	0	4	1	1	0	75	55	29.71	4000	9
120325	001689	04/29/71	F41	70	FORD	LDTRU	6210	360	8	4	0	0	2	1	1	0	69	55	29.92	4000	8
120423	001753	10/01/71	F41	70	FORD	LDTRU	19388	360	8	0	0	0	2	1	1	0	72	64	30.20	4000	8
120535	001818	10/25/71	F42	70	FORD	FORD	14144	390	8	0	1	0	4	1	1	0	76	69	30.00	4500	11
120462	001797	10/16/71	F45	70	MERC	MARQU	8546	429	8	0	1	0	2	1	1	0	72	65	30.04	4500	11
120295	001653	04/20/71	F46	70	MERC	CYCLO	4209	429	8	4	0	0	4	1	2	0	74	64	29.65	4000	9
120408	001722	09/23/71	F46	70	FORD	TORIN	23429	429	8	0	0	0	4	1	1	0	72	65	30.18	4000	9
120096	001305	02/05/71	F47	70	LINC	CONTI	11735	460	8	0	1	0	4	1	2	0	72	49	29.63	5500	11
120149	001364	02/16/71	F47	70	LINC	CONTI	11813	460	8	0	1	0	4	1	2	0	76	51	29.65	5500	11
120194	001417	02/21/71	F47	70	LINC	CONTI	7111	460	8	0	1	0	4	1	2	0	75	53	29.87	5500	11
120020	001175	12/30/70	G51	70	CHEV	NOVA	6219	230	6	3	0	0	1	1	1	0	78	56	30.60	3500	8
120027	001197	01/11/71	G51	70	CHEV	NOVA	7360	230	6	0	0	0	1	1	1	0	69	48	30.53	3500	8
120028	001198	01/11/71	G51	70	CHEV	NOVA	5066	230	6	0	0	0	1	1	1	0	73	50	30.57	3500	8
120041	001225	01/15/71	G51	70	CHEV	NOVA	4967	230	6	0	0	0	1	1	1	0	74	51	31.24	3500	8
120051	001247	01/21/71	G51	70	CHEV	NOVA	16554	230	6	0	0	0	1	1	1	0	78	54	29.93	3500	8
120087	001291	02/02/71	G51	70	CHEV	NOVA	4417	230	6	0	0	0	1	1	1	0	76	52	30.20	3500	8
120095	001304	02/04/71	G51	70	CHEV	NOVA	11641	230	6	3	0	0	1	1	1	0	77	53	29.25	3500	8
120023	001187	01/08/71	G52	70	CHEV	C-10	7206	250	6	3	0	0	1	1	1	0	72	53	30.68	4000	8
120052	001248	01/21/71	G52	70	CHEV	CHEVE	7489	250	6	0	0	0	1	1	1	0	78	54	29.94	3500	8
120098	001308	02/05/71	G52	70	BUIC	SKYLA	8809	250	6	0	0	0	1	1	1	0	72	49	29.75	3500	8
120151	001370	02/17/71	G52	70	CHEV	NOVA	7338	250	6	3	0	0	1	1	1	0	76	51	30.10	3500	8
120201	001424	03/01/71	G52	70	PONT	TEMPE	8494	250	6	3	0	0	1	1	1	0	74	52	29.93	3500	8
120205	001436	03/02/71	G52	70	PONT	TEMPE	6422	250	6	3	0	0	1	1	1	0	78	56	30.30	3500	8
120232	001473	03/11/71	G52	70	PONT	TEMPE	11644	250	6	0	0	0	1	1	1	0	77	52	29.69	3500	8
120290	001634	04/15/71	G52	70	CHEV	CHEVT	4023	250	6	3	0	0	1	1	1	0	68	52	29.87	4000	8
120308	001669	04/26/71	G52	70	BUIC	SKYLA	14999	250	6	0	0	0	1	1	1	0	75	55	29.71	3500	8
120430	001792	10/15/71	G52	70	CHEV	NOVA	20784	250	6	0	0	0	1	1	1	0	73	65	30.00	3500	8
120442	001772	10/11/71	G52	70	CHEV	CHEVT	3950	250	6	3	0	0	1	1	1	0	70	63	30.20	4000	8
120457	001773	10/11/71	G52	70	CHEV	NOVA	29350	250	6	3	0	0	1	1	1	0	71	64	30.20	3500	8
120460	001793	10/15/71	G52	70	CHEV	NOVA	29975	250	6	0	0	0	1	1	1	0	75	68	30.04	3500	8
120466	001778	10/12/71	G52	70	CHEV	NOVA	15541	250	6	0	0	0	1	1	1	0	72	65	30.12	3500	8
120467	001716	09/22/71	G52	70	CHEV	NOVA	14235	250	6	0	0	0	1	1	1	0	70	63	30.13	3500	8
120468	001735	09/28/71	G52	70	CHEV	NOVA	15748	250	6	0	0	0	1	1	1	0	73	64	30.30	3500	8
120530	001808	10/20/71	G52	70	CHEV	CAMAR	7004	250	6	3	0	0	1	1	1	0	72	65	29.98	3500	8
120040	001221	01/15/71	G53	70	CHEV	NOVA	6995	307	8	3	0	0	2	1	1	0	74	51	31.25	3500	8
120042	001227	01/16/71	G53	70	CHEV	MALIB	8151	307	8	0	1	0	2	1	1	0	76	53	30.70	3500	8
120050	001246	01/21/71	G53	70	CHEV	NOVA	12519	307	8	0	1	0	2	1	1	0	76	54	29.90	3500	8
120055	001252	01/22/71	G53	70	CHEV	CAMAR	6737	307	8	3	0	0	2	1	1	0	74	52	29.70	3500	8
120058	001255	01/22/71	G53	70	CHEV	NOVA	7778	307	8	0	0	0	2	1	1	0	75	52	29.70	3500	8
120089	001295	02/03/71	G53	70	CHEV	CAMAR	13475	307	8	3	0	0	2	1	1	0	75	52	30.00	3500	8
120101	001311	02/06/71	G53	70	CHEV	CHEVE	5777	307	8	0	1	0	2	1	1	0	75	50	30.15	3500	8
120103	001313	02/08/71	G53	70	CHEV	CHEVE	10395	307	8	0	1	0	2	1	1	0	72	49	30.14	3500	8
120131	001343	02/12/71	G53	70	CHEV	CHEVE	4258	307	8	0	1	0	2	1	1	0	76	54	30.20	3500	8
120141	001354	02/15/71	G53	70	CHEV	NOVA	14016	307	8	3	1	0	2	1	1	0	75	52	30.00	3500	8
120160	001379	02/19/71	G53	70	CHEV	CHEVE	15428	307	8	0	1	0	2	1	1	0	75	52	29.25	3500	8
120164	001384	02/19/71	G53	70	CHEV	CHEVE	8770	307	8	0	1	0	2	1	1	0	75	52	29.20	3500	8
120189	001412	02/26/71	G53	70	CHEV	NOVA	5304	307	8	0	1	0	2	1	1	0	78	52	29.15	3500	8
120210	001443	03/02/71	G53	70	CHEV	CHEVE	7106	307	8	0	1	0	2	1	1	0	78	56	30.25	3500	8
120212	001446	03/04/71	G53	70	CHEV	CAMAR	15269	307	8	0	1	0	2	1	1	0	74	51	29.95	3500	8

KANSAS CITY CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
120305	001666	04/26/71	GS3	70	CHEV	CHEVE	8715	307	8	0	1	0	2	1	1	0	75	55	29.68	3500	8
120312	001675	04/27/71	GS3	70	CHEV	CHEVE	12685	307	8	0	1	0	2	1	1	0	69	61	29.42	3500	8
120321	001685	04/29/71	GS3	70	CHEV	CHEVE	9830	307	8	0	1	0	2	1	1	0	68	55	29.87	3500	8
120034	001209	01/13/71	GS5	70	CHEV	CAMAR	7680	350	8	0	1	0	4	1	1	0	72	52	30.52	3500	9
120043	001229	01/16/71	GS5	70	CHEV	LDTRU	4909	350	8	0	1	0	4	1	1	0	78	53	30.63	4500	9
120054	001251	01/22/71	GS5	70	CHEV	CAMAR	7678	350	8	0	1	0	4	1	1	0	75	52	29.70	3500	9
120062	001261	01/26/71	GS5	70	CHEV	CAPRI	7777	350	8	0	1	0	4	1	1	0	72	49	30.33	4500	11
120107	001317	02/09/71	GS5	70	CHEV	LDTRU	7276	350	8	0	1	0	4	1	1	0	68	47	30.25	4500	9
120108	001318	02/09/71	GS5	70	CHEV	CHEVE	10791	350	8	0	0	0	4	1	1	0	68	47	30.25	4000	9
120125	001336	02/11/71	GS5	70	CHEV	IMPAL	7550	350	8	0	1	0	4	1	1	0	74	52	29.65	4500	11
120175	001399	02/22/71	GS5	70	CHEV	MONTE	6798	350	8	0	1	0	4	1	1	0	72	54	29.05	4000	9
120208	001439	03/02/71	GS5	70	CHEV	CHEVR	8209	350	8	0	1	0	4	1	1	0	78	56	30.33	4500	11
120231	001471	03/10/71	GS5	70	CHEV	CHEVR	15137	350	8	0	1	0	4	1	1	0	71	51	29.80	4500	11
120252	001508	03/30/71	GS5	70	CHEV	IMPAL	15461	350	8	0	1	0	4	1	1	0	76	55	29.90	4500	11
120287	001627	04/13/71	GS5	70	CHEV	IMPAL	12054	350	8	0	1	0	4	1	1	0	72	56	30.10	4500	11
120291	001635	04/15/71	GS5	70	CHEV	CHEVT	9243	350	8	0	0	0	4	1	1	0	68	52	29.87	4500	9
120292	001639	04/15/71	GS5	70	CHEV	CHEVT	8168	350	8	0	1	0	4	1	1	0	70	52	29.67	4500	9
120302	001661	04/22/71	GS5	70	CHEV	CORVE	6850	350	8	4	0	0	4	1	2	0	70	54	29.64	3500	9
120303	001662	04/22/71	GS5	70	CHEV	MONTE	12538	350	8	0	1	0	4	1	1	0	70	54	29.67	4000	9
120002	001134	12/17/70	GS7	70	CHEV	IMPAL	8911	350	8	0	1	0	2	1	1	0	76	54	30.39	4500	11
120003	001135	12/17/70	GS7	70	CHEV	IMPAL	9090	350	8	0	1	0	2	1	1	0	76	54	30.34	4500	11
120004	001137	12/18/70	GS7	70	CHEV	CHEVE	5291	350	8	0	1	0	2	1	1	0	74	52	30.23	4000	9
120021	001183	01/02/71	GS7	70	CHEV	MALIB	8591	350	8	0	1	0	2	1	1	0	76	57	30.60	4000	9
120022	001185	01/05/71	GS7	70	CHEV	IMPAL	8580	350	8	0	1	0	2	1	1	0	74	56	30.97	4500	11
120025	001192	01/09/71	GS7	70	CHEV	IMPAL	9562	350	8	0	1	0	2	1	1	0	75	54	30.25	4500	11
120030	001200	01/11/71	GS7	70	CHEV	IMPAL	6505	350	8	0	1	0	2	1	1	0	73	50	30.62	4500	11
120031	001201	01/11/71	GS7	70	CHEV	IMPAL	8528	350	8	0	1	0	2	1	1	0	73	50	30.62	4500	11
120036	001213	01/14/71	GS7	70	CHEV	IMPAL	7042	350	8	0	1	0	2	1	1	0	76	53	30.68	4500	11
120038	001217	01/14/71	GS7	70	CHEV	IMPAL	8920	350	8	0	1	0	2	1	1	0	76	53	30.75	4500	11
120039	001220	01/15/71	GS7	70	CHEV	MALIB	7836	350	8	0	1	0	2	1	1	0	74	51	31.23	4000	9
120049	001242	01/20/71	GS7	70	CHEV	CAMAR	6993	350	8	0	1	0	2	1	1	0	75	53	29.81	3500	9
120074	001277	01/29/71	GS7	70	CHEV	IMPAL	9337	350	8	0	1	0	2	1	1	0	74	52	29.42	4500	11
120076	001279	01/30/71	GS7	70	CHEV	CHEVE	8321	350	8	0	1	0	2	1	1	0	71	49	29.70	4000	9
120099	001309	02/06/71	GS7	70	CHEV	IMPAL	14214	350	8	0	0	0	2	1	1	0	72	49	30.02	4500	11
120119	001330	02/11/71	GS7	70	CHEV	CHEVE	4981	350	8	0	1	0	2	1	1	0	73	52	29.57	4000	9
120130	001341	02/12/71	GS7	70	CHEV	BELAI	9994	350	8	0	1	0	2	1	1	0	76	54	30.20	4500	11
120133	001346	02/13/71	GS7	70	CHEV	IMPAL	8064	350	8	0	1	0	2	1	1	0	72	50	30.25	4500	11
120162	001381	02/19/71	GS7	70	CHEV	IMPAL	16773	350	8	0	1	0	2	1	1	0	75	52	29.20	4500	11
120166	001386	02/20/71	GS7	70	CHEV	CHEVE	8348	350	8	0	1	0	2	1	1	0	74	53	29.90	4000	9
120207	001438	03/02/71	GS7	70	CHEV	CAMAR	9728	350	8	0	1	0	2	1	1	0	78	56	30.33	3500	9
120215	001451	03/04/71	GS7	70	CHEV	CHEVE	14774	350	8	4	0	0	2	1	1	0	72	51	29.72	4000	9
120230	001469	03/09/71	GS7	70	CHEV	CHEVE	5847	350	8	0	1	0	2	1	1	0	72	58	29.67	4000	9
120234	001476	03/11/71	GS7	70	CHEV	CAMAR	5125	350	8	0	1	0	2	1	1	0	77	52	29.65	3500	9
120249	001548	03/25/71	GS7	70	CHEV	MONTE	11383	350	8	0	1	0	2	1	1	0	72	53	30.03	4000	9
120001	001130	12/16/70	GS9	70	CHEV	MONTE	6528	400	8	0	1	0	2	1	1	0	74	53	30.36	4000	9
120046	001236	01/19/71	GS9	70	CHEV	CHEVR	6319	400	8	0	1	0	2	1	1	0	72	54	31.06	4500	11
120048	001241	01/20/71	GS9	70	CHEV	CHEVR	9101	400	8	0	1	0	2	1	1	0	76	53	30.00	4500	11
120080	001283	02/01/71	GS9	70	CHEV	CAPRI	7444	400	8	0	1	0	2	1	1	0	72	49	30.50	4500	11
120163	001383	02/19/71	GS9	70	CHEV	CHEVR	10666	400	8	0	1	0	2	1	1	0	75	52	29.20	4500	11
120227	001466	03/09/71	GS9	70	CHEV	CHEVR	12771	400	8	0	1	0	2	1	1	0	74	58	29.77	4500	11

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KANSAS CITY CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
120327	001691	05/03/71	G59	70	CHEV	CHEVR	6972	400	8	0	1	0	2	1	1	0	69	53	30.16	4500	11
120105	001315	02/08/71	G60	70	CHEV	MONTE	11963	402	8	0	1	0	4	1	1	0	72	49	30.15	4000	8
120192	001415	02/26/71	G60	70	CHEV	MONTE	14868	402	8	0	1	0	4	1	1	0	78	52	29.25	4000	8
120229	001468	03/09/71	G60	70	CHEV	CAMAR	8592	402	8	4	0	0	4	1	1	0	72	58	29.70	4000	8
120063	001263	01/27/71	G64	70	CHEV	IMPAL	8457	454	8	0	1	0	4	1	1	0	70	48	30.46	4500	10
120113	001323	02/10/71	G64	70	CHEV	MONTE	13693	454	8	0	1	0	4	1	1	0	70	48	30.00	4000	10
120024	001191	01/09/71	G61	70	PONT	LEMAN	6238	350	8	0	1	0	2	1	1	0	75	54	30.24	4000	9
120053	001249	01/21/71	G61	70	PONT	LEMAN	10986	350	8	0	1	0	2	1	1	0	77	54	29.94	4000	9
120060	001259	01/25/71	G61	70	PONT	FIREB	12307	350	8	3	0	0	2	1	1	0	76	53	29.48	4000	9
120077	001280	01/30/71	G61	70	PONT	CATAL	12572	350	8	0	1	0	2	1	1	0	75	51	29.75	4500	11
120078	001281	01/30/71	G61	70	PONT	CATAL	6394	350	8	0	1	0	2	1	1	0	75	50	29.75	4500	11
120123	001334	02/11/71	G61	70	PONT	FIREB	6311	350	8	0	1	0	2	1	1	0	74	52	29.60	4000	9
120174	001398	02/22/71	G61	70	PONT	LEMAN	9389	350	8	0	1	0	2	1	1	0	72	54	29.05	4000	9
120322	001686	04/29/71	G61	70	PONT	FIREB	11629	350	8	0	1	0	2	1	1	0	68	55	29.87	4000	9
120333	001698	05/06/71	G61	70	PONT	CATAL	17237	350	8	0	0	0	2	1	1	0	77	55	29.34	4500	11
120537	001805	10/18/71	G61	70	PONT	LEMAN	46580	350	8	0	1	0	2	1	1	0	75	68	30.12	4000	9
120009	001158	12/23/70	G62	70	PONT	EXECU	8095	400	8	0	1	0	2	1	1	0	73	51	30.64	4500	11
120084	001288	02/02/71	G62	70	PONT	EXECU	5372	400	8	0	1	0	2	1	1	0	75	52	30.36	4500	11
120219	001457	03/05/71	G62	70	PONT	CATAL	14856	400	8	0	1	0	2	1	1	0	75	53	29.44	4500	11
120298	001657	04/20/71	G62	70	PONT	CATAL	5389	400	8	0	1	0	2	1	1	0	74	64	29.63	4500	11
120311	001674	04/27/71	G62	70	PONT	CATAL	9429	400	8	0	1	0	2	1	1	0	69	61	29.42	4500	11
120331	001695	05/04/71	G62	70	PONT	CATAL	20049	400	8	0	1	0	2	1	1	0	72	53	29.77	4500	11
120456	001803	10/18/71	G62	70	PONT	CATAL	14464	400	8	0	1	0	2	1	1	0	72	65	30.10	4500	11
120052	001203	01/12/71	G68	70	PONT	FIREB	8064	400	8	0	1	0	4	1	1	0	73	51	30.80	4000	9
120171	001395	02/22/71	G68	70	PONT	GRAND	15013	400	8	0	1	0	4	1	1	0	72	54	29.05	4500	11
120257	001559	03/27/71	G68	70	PONT	CATAL	4309	400	8	0	1	0	4	1	1	0	78	57	29.57	4500	11
120285	001622	04/08/71	G68	70	PONT	GRAND	4133	400	8	0	1	0	4	1	1	0	76	54	29.73	4500	11
120332	001697	05/05/71	G68	70	PONT	FIREB	7154	400	8	0	1	0	4	1	1	0	76	60	29.28	4000	9
120334	001699	05/06/71	G68	70	PONT	JUDGE	18822	400	8	4	1	0	4	1	1	0	79	63	29.38	4000	9
120010	001159	12/23/70	G70	70	PONT	BONNE	2346	455	8	0	1	0	4	1	1	0	74	51	30.66	5000	11
120016	001167	12/24/70	G66	70	OLDS	CUTLA	7266	350	8	0	1	0	2	1	1	0	75	53	30.55	4000	9
120018	001169	12/24/70	G66	70	OLDS	CUTLA	9489	350	8	0	1	0	2	1	1	0	75	53	30.55	4000	9
120037	001216	01/14/71	G66	70	OLDS	CUTLA	9940	350	8	0	1	0	2	1	1	0	76	53	30.74	4500	11
120085	001289	02/02/71	G66	70	OLDS	CUTLA	15582	350	8	0	1	0	2	1	1	0	74	51	30.35	4000	9
120090	001296	02/03/71	G66	70	OLDS	CUTLA	12366	350	8	0	1	0	2	1	1	0	76	52	30.00	4000	9
120122	001333	02/11/71	G66	70	OLDS	CUTLA	7782	350	8	0	1	0	2	1	1	0	74	52	29.60	4000	9
120126	001337	02/12/71	G66	70	OLDS	CUTLA	9308	350	8	0	1	0	2	1	1	0	76	54	30.15	4000	9
120143	001356	02/15/71	G66	70	OLDS	CUTLA	14254	350	8	3	0	0	2	1	1	0	75	52	30.00	4000	9
120144	001357	02/16/71	G66	70	OLDS	CUTLA	13836	350	8	0	1	0	2	1	1	0	76	51	29.65	4000	9
120228	001467	03/09/71	G66	70	OLDS	CUTLA	10388	350	8	0	1	0	2	1	1	0	74	58	29.75	4000	9
120073	001275	01/29/71	G67	70	OLDS	NINET	14378	455	8	0	1	0	4	1	1	0	74	52	29.45	5000	11
120120	001331	02/11/71	G67	70	OLDS	NINET	12068	455	8	0	1	0	4	1	1	0	73	52	29.57	5000	11
120142	001355	02/15/71	G67	70	OLDS	DELTA	13094	455	8	0	1	0	4	1	1	0	75	52	30.00	5000	11
120193	001416	02/27/71	G67	70	OLDS	NINET	8673	455	8	0	1	0	4	1	1	0	75	53	29.75	5000	11
120203	001426	03/01/71	G67	70	OLDS	CUTLA	11498	455	8	0	1	0	4	1	1	0	74	52	29.95	4500	11
120211	001444	03/03/71	G67	70	OLDS	OLDSM	4854	455	8	0	1	0	4	1	1	0	70	48	30.25	5000	11
120214	001450	03/04/71	G67	70	OLDS	4-4-2	13962	455	8	0	1	0	4	1	1	0	72	51	29.82	4500	11
120221	001459	03/05/71	G72	70	OLDS	OLDSM	8504	350	8	0	1	0	4	1	1	0	75	53	29.45	5000	11
120236	001481	03/13/71	G72	70	OLDS	CUTLA	12597	350	8	0	1	0	4	1	1	0	70	51	29.47	4000	9
120102	001312	02/08/71	G73	70	OLDS	DELTA	11795	455	8	0	1	0	2	1	1	0	70	48	30.13	5000	11

KANSAS CITY — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	CODPR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
120127	001338	02/12/71	G73	70	OLDS	DELTA	4069	455	8	0	1	0	2	1	1	0	76	54	30.15	5000	11
120138	001351	02/13/71	G73	70	OLDS	CUTLA	15262	455	8	0	1	0	2	1	1	0	71	50	30.25	5000	11
120169	001389	02/20/71	G73	70	OLDS	DELTA	9590	455	8	0	1	0	2	1	1	0	74	53	29.95	5000	11
120225	001464	03/09/71	G73	70	OLDS	DELTA	11114	455	8	0	1	0	2	1	1	0	74	58	29.80	5000	11
120094	001301	02/04/71	G71	70	BUIC	LESAB	9749	350	8	0	1	0	4	1	1	0	77	53	29.53	5000	11
120154	001373	02/18/71	G71	70	BUIC	LESAB	10186	350	8	0	1	0	4	1	1	0	78	54	29.85	5000	11
120217	001455	03/05/71	G71	70	BUIC	LESAB	4070	350	8	0	1	0	4	1	1	0	75	53	29.56	5000	11
120278	001592	04/02/71	G71	70	BUIC	LESAB	7442	350	8	0	1	0	4	1	1	0	69	49	30.15	5000	11
120309	001672	04/26/71	G71	70	BUIC	LESAB	9661	350	8	0	1	0	4	1	1	0	75	55	29.71	5000	11
120314	001678	04/27/71	G71	70	BUIC	LESAB	8875	350	8	0	1	0	4	1	1	0	69	61	29.43	5000	11
120318	001682	04/28/71	G71	70	BUIC	LESAB	7052	350	8	0	1	0	4	1	1	0	69	53	29.71	5000	11
120109	001319	02/09/71	G74	70	BUIC	SKYLA	11767	350	8	0	1	0	2	1	1	0	68	47	30.25	4000	9
120139	001352	02/13/71	G74	70	BUIC	SKYLA	14147	350	8	0	1	0	2	1	1	0	72	50	30.25	4000	9
120150	001368	02/17/71	G74	70	BUIC	SKYLA	5272	350	8	0	1	0	2	1	1	0	76	51	30.10	4000	9
120167	001387	02/20/71	G74	70	BUIC	SKYLA	12839	350	8	0	1	0	2	1	1	0	74	53	29.90	4000	9
120259	001564	03/29/71	G74	70	BUIC	LESAB	6743	350	8	0	1	0	2	1	1	0	70	55	30.20	5000	11
120335	001700	05/06/71	G74	70	BUIC	SKYLA	15250	350	8	0	1	0	2	1	1	0	81	64	29.40	4000	9
120419	001817	10/21/71	G74	70	BUIC	SKYLA	26448	350	8	0	1	0	2	1	1	0	74	65	30.00	4000	9
120532	001810	10/20/71	G74	70	BUIC	SKYLA	21401	350	8	0	0	0	2	1	1	0	75	68	29.94	4000	9
120121	001332	02/11/71	G75	70	BUIC	ELECT	10066	455	8	0	1	0	4	1	1	0	74	52	29.60	5000	11
120323	001687	04/29/71	G75	70	BUIC	ELECT	14890	455	8	0	1	0	4	1	1	0	69	55	29.87	5000	11
120405	001718	09/23/71	G75	70	BUIC	ELECT	15614	455	8	0	1	0	4	1	1	0	70	63	30.20	5000	11
120412	001758	10/01/71	G75	70	BUIC	WILDC	28647	455	8	0	1	0	4	1	1	0	74	66	30.22	5000	11
120413	001799	10/16/71	G75	70	BUIC	WILDC	33216	455	8	0	1	0	4	1	1	0	73	67	30.00	5000	11
120415	001787	10/14/71	G75	70	BUIC	RIVIE	13337	455	8	0	1	0	4	1	1	0	73	65	30.04	5000	11
120420	001719	09/23/71	G75	70	BUIC	WILDC	23014	455	8	0	1	0	4	1	1	0	71	64	30.18	5000	11
120424	001756	10/01/71	G75	70	BUIC	ELECT	13802	455	8	0	1	0	4	1	1	0	72	64	30.20	5000	11
120240	001510	03/18/71	G77	70	CADI	DEVIL	13386	472	8	0	1	0	4	1	1	0	76	52	29.28	5500	11
120241	001518	03/19/71	G77	70	CADI	DEVIL	15279	472	8	0	1	0	4	1	1	0	73	51	29.90	5500	11
120316	001680	04/27/71	G77	70	CADI	DEVIL	14752	472	8	0	1	0	4	1	1	0	69	61	29.45	5500	11
120317	001681	04/28/71	G77	70	CADI	DEVIL	7847	472	8	0	1	0	4	1	1	0	69	53	29.71	5500	11
120403	001724	09/24/71	G77	70	CADI	DEVIL	22841	472	8	0	1	0	4	1	1	0	71	64	30.32	5500	11
120071	001273	01/29/71	V82	70	VOLK	SQBK	7804	97	4	4	0	1	0	1	1	0	73	51	29.55	2500	7
120083	001286	02/01/71	V82	70	VOLK	SQBK	7189	97	4	0	0	1	0	1	1	0	74	51	30.53	2500	7
120197	001420	02/27/71	V82	70	VOLK	FTBK	7447	97	4	4	1	1	0	1	1	0	75	53	29.90	2500	7
120029	001199	01/11/71	V83	70	VOLK	BEETL	9727	97	4	4	0	0	1	1	1	0	73	50	30.60	2250	6
120045	001234	01/19/71	V83	70	VOLK	BEETL	8404	97	4	4	0	0	1	1	1	0	75	54	31.13	2250	6
120056	001253	01/22/71	V83	70	VOLK	BEETL	8969	97	4	4	0	0	1	1	1	0	75	52	29.69	2250	6
120057	001254	01/22/71	V83	70	VOLK	BUS	12283	97	4	4	0	0	1	1	1	0	75	52	29.69	3000	12
120059	001258	01/23/71	V83	70	VOLK	BEETL	7643	97	4	0	1	0	1	1	1	0	73	54	29.92	2250	6
120061	001260	01/25/71	V83	70	VOLK	BUS	8675	97	4	4	0	0	1	1	1	0	76	53	29.48	3000	12
120064	001264	01/27/71	V83	70	VOLK	BEETL	14969	97	4	4	1	0	1	1	1	0	70	48	30.47	2250	6
120065	001265	01/27/71	V83	70	VOLK	BEETL	5439	97	4	0	0	0	1	1	1	0	70	48	30.47	2250	6
120066	001266	01/27/71	V83	70	VOLK	BUS	5540	97	4	4	0	0	1	1	1	0	70	48	30.47	3000	12
120068	001268	01/27/71	V83	70	VOLK	BEETL	7748	97	4	4	0	0	1	1	1	0	75	50	30.22	2250	6
120069	001269	01/28/71	V83	70	VOLK	BUS	10847	97	4	4	0	0	1	1	1	0	75	50	30.22	3000	12
120072	001274	01/29/71	V83	70	VOLK	BEETL	5705	97	4	4	0	0	1	1	1	0	74	52	29.55	2250	6
120075	001278	01/30/71	V83	70	VOLK	BEETL	13286	97	4	4	0	0	1	1	1	0	71	49	29.70	2250	6
120106	001316	02/08/71	V83	70	VOLK	BEETL	7674	97	4	4	0	0	1	1	1	0	69	47	30.16	2250	6
120116	001326	02/10/71	V83	70	VOLK	BEETL	5558	97	4	4	1	0	1	1	1	0	73	50	29.85	2250	6

KANSAS CITY

1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
120135	001348	02/13/71	VB3	70	VOLK	BEETL	8980	97	4	4	0	0	1	1	1	0	72	50	30.25	2250	6
120209	001440	03/02/71	VB3	70	VOLK	BEETL	5593	97	4	0	0	0	1	1	1	0	78	56	30.28	2250	6

TABLE A-2

Houston

HOUSTON CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
						1970 VEHICLES															
220041	001083	02/10/71	A	1	70	AMER	HORNE	8035	232	6	0	1	0	1	1	1	0	71	62	30.90	3000	8
220081	001192	03/02/71	A	1	70	AMER	HORNE	14491	232	6	3	1	0	1	1	1	0	70	63	30.15	3000	8
220116	001251	03/10/71	A	1	70	AMER	HORNE	5586	232	6	0	1	0	1	1	1	0	68	63	30.50	3000	8
220215	001563	05/14/71	A	1	70	AMER	JAVEL	6488	232	6	0	1	0	1	1	1	0	70	66	30.45	3000	8
220233	001589	05/20/71	A	1	70	AMER	HORNE	8063	232	6	3	1	0	1	1	1	0	74	69	30.50	3000	8
220234	001590	05/20/71	A	1	70	AMER	HORNE	7608	232	6	0	1	0	1	1	1	0	75	70	30.50	3000	8
220268	001652	06/07/71	A	1	70	AMER	GREML	13507	232	6	3	1	0	1	1	1	0	77	72	30.40	3000	8
220282	001745	07/01/71	A	1	70	AMER	REBEL	14466	232	6	0	0	0	1	1	1	0	77	75	30.50	3500	8
220322	001809	07/31/71	A	1	70	AMER	HORNE	8110	232	6	3	0	0	1	1	1	0	78	71	30.50	3000	8
220383	002121	10/21/71	A	1	70	AMER	HORNE	31955	232	6	3	1	0	1	1	1	0	68	61	30.60	3000	8
220036	001069	02/03/71	A	2	70	AMER	HORNE	4536	199	6	0	1	0	1	1	1	0	70	61	30.95	3000	8
220327	000822	08/04/71	A	3	70	AMER	REBEL	9354	232	6	0	1	0	2	1	1	0	80	78	30.45	3500	8
220370	001884	08/13/71	A	3	70	AMER	HORNE	17752	232	6	0	1	0	2	1	1	0	77	75	30.40	3000	8
220131	001313	03/25/71	A	5	70	AMER	REBEL	4390	304	8	0	1	0	2	1	1	0	71	64	30.20	4000	8
220307	001804	07/30/71	A	5	70	AMER	AMBAS	9871	304	8	0	1	0	2	1	1	0	80	78	30.45	4000	8
220308	001859	08/09/71	A	5	70	AMER	JAVEL	11450	304	8	0	1	0	2	1	1	0	84	79	30.55	3500	8
220384	002124	10/22/71	A	5	70	AMER	JAVEL	10689	304	8	3	1	0	2	1	2	0	70	63	30.53	3500	8
220286	001807	07/30/71	A	7	70	AMER	AMBAS	13741	360	8	0	1	0	2	1	1	0	86	80	30.45	4000	9
220376	001915	08/20/71	A	7	70	AMER	JAVEL	4672	360	8	0	1	0	2	1	1	0	84	82	30.60	3500	9
220298	001789	07/27/71	A10		70	AMER	AMBAS	9565	390	8	0	1	0	4	1	1	0	78	75	30.45	4000	9
220275	001729	06/24/71	C10		70	PLYM	DUSTE	14806	198	6	3	0	0	1	1	1	0	77	73	30.45	3000	8
220309	001798	07/29/71	C10		70	PLYM	DUSTE	12203	198	6	0	1	0	1	1	1	0	80	78	30.45	3000	8
220328	000818	08/03/71	C10		70	PLYM	BARRA	7263	198	6	3	0	0	1	1	1	0	80	78	30.43	3000	8
220334	002085	10/08/71	C10		70	PLYM	DUSTE	22264	198	6	3	1	0	1	1	1	0	85	75	30.50	3000	8
220359	001904	08/19/71	C10		70	PLYM	DUSTE	17997	198	6	3	1	0	1	1	1	0	80	76	30.50	3000	8
220039	001075	02/10/71	C11		70	PLYM	DUSTE	12317	225	6	0	0	0	1	1	1	0	68	60	30.90	3500	8
220311	001239	03/08/71	C11		70	DODG	DART	10350	225	6	0	1	0	1	1	1	0	70	61	30.75	3500	8
220150	001348	04/01/71	C11		70	PLYM	VALIA	6180	225	6	0	1	0	1	1	1	0	69	64	30.35	3500	8
220164	001367	04/06/71	C11		70	PLYM	DUSTE	12763	225	6	0	1	0	1	1	1	0	72	61	30.90	3500	8
220194	001458	04/23/71	C11		70	PLYM	DUSTE	12465	225	6	0	1	0	1	1	1	0	80	73	30.15	3500	8
220217	001569	05/17/71	C11		70	DODG	DART	14223	225	6	0	1	0	1	1	1	0	71	68	30.35	3500	8
220223	001581	05/19/71	C11		70	DODG	DART	7710	225	6	0	1	0	1	1	1	0	71	67	30.35	3500	8
220225	001578	05/18/71	C11		70	PLYM	DUSTE	8921	225	6	3	1	0	1	1	1	0	76	70	30.25	3500	8
220229	001584	05/19/71	C11		70	PLYM	DUSTE	22567	225	6	0	0	0	1	1	1	0	80	75	30.42	3500	8
220230	001585	05/19/71	C11		70	DODG	DART	11095	225	6	0	1	0	1	1	1	0	80	75	30.42	3500	8
220236	001592	05/20/71	C11		70	DODG	DART	6104	225	6	0	1	0	1	1	1	0	78	72	30.50	3500	8
220252	001609	05/26/71	C11		70	PLYM	DUSTE	10060	225	6	0	1	0	1	1	1	0	78	75	30.52	3500	8
220262	001631	06/01/71	C11		70	PLYM	DUSTE	6901	225	6	0	1	0	1	1	1	0	75	74	30.44	3500	8
220267	001646	06/04/71	C11		70	PLYM	DUSTE	11801	225	6	3	1	0	1	1	1	0	77	75	30.65	3500	8
220281	001748	06/30/71	C11		70	DODG	LDTRU	5023	225	6	4	0	0	1	1	1	0	81	77	30.50	4000	8
220382	002069	10/05/71	C11		70	PLYM	DUSTE	11953	225	6	0	1	0	1	1	1	0	77	74	30.57	3500	8
220009	000933	01/18/71	C12		70	PLYM	SATEL	20335	318	8	0	1	0	2	1	1	0	68	61	30.25	3500	9
220011	000935	01/18/71	C12		70	DODG	CORON	9833	318	8	0	1	0	2	1	1	0	70	63	30.35	3500	9
220024	001022	02/01/71	C12		70	PLYM	DUSTE	8281	318	8	0	1	0	2	1	1	0	70	61	30.80	3500	9
220027	001055	02/08/71	C12		70	DODG	CHALL	9881	318	8	0	1	0	2	1	1	0	68	60	30.70	3500	9
220040	001082	02/10/71	C12		70	PLYM	DUSTE	12317	318	8	0	0	0	2	1	1	0	68	60	30.90	3500	9
220093	001208	03/03/71	C12		70	DODG	CORON	4865	318	8	3	1	0	2	1	1	0	72	63	30.70	3500	9
220101	001216	03/04/71	C12		70	PLYM	BELVE	13383	318	8	0	1	0	2	1	1	0	69	61	30.80	3500	9
220102	001217	03/04/71	C12		70	PLYM	DUSTE	13079	318	8	0	1	0	2	1	1	0	70	61	30.80	3500	9
220109	001233	03/08/71	C12		70	DODG	CORON	13083	318	8	0	1	0	2	1	1	0	69	60	30.75	3500	9

HOUSTON CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DR	WB	BAROM	INRT	HP
						1970 VEHICLES															
220151	001349	04/01/71	C12	70	PLYM	VALIA	13395	318	8	0	1	0	2	1	1	0	69	64	30.35	3500	9
220154	001353	04/01/71	C12	70	DODG	DART	12353	318	8	0	1	0	2	1	1	0	73	66	30.40	3500	9
220162	001363	04/05/71	C12	70	PLYM	DUSTE	14599	318	8	0	1	0	2	1	1	0	72	63	30.70	3500	9
220170	001385	04/08/71	C12	70	PLYM	SATEL	11677	318	8	0	1	0	2	1	1	0	73	64	30.75	3500	9
220176	001399	04/14/71	C12	70	DODG	CHARG	8146	318	8	0	1	0	2	1	1	0	75	66	30.70	4000	9
220185	001430	04/20/71	C12	70	DODG	DART	4391	318	8	0	1	0	2	1	1	0	77	72	30.20	3500	9
220201	001495	04/30/71	C12	70	PLYM	SATEL	6973	318	8	0	1	0	2	1	1	0	71	67	30.25	3500	9
220202	001504	05/03/71	C12	70	PLYM	DUSTE	14185	318	8	0	1	0	2	1	1	0	75	70	30.50	3500	9
220203	001511	05/04/71	C12	70	PLYM	SATEL	14979	318	8	0	1	0	2	1	1	0	80	75	30.50	3500	9
220216	001564	05/14/71	C12	70	DODG	CHARG	14640	318	8	0	1	0	2	1	1	0	70	66	30.45	4000	9
220222	001575	05/18/71	C12	70	PLYM	FURY	8972	318	8	0	1	0	2	1	1	0	71	67	30.20	4500	9
220007	000928	01/15/71	C13	70	DODG	POLAR	10108	383	8	0	1	0	2	1	1	0	71	67	30.85	4500	11
220012	000936	01/18/71	C13	70	DODG	MONAC	10446	383	8	0	1	0	2	1	1	0	70	63	30.35	4500	11
220013	000937	01/18/71	C13	70	DODG	MONAC	10141	383	8	0	1	0	2	1	1	0	72	63	30.35	4500	11
220016	000940	01/19/71	C13	70	DODG	MONAC	4646	383	8	0	1	0	2	1	1	0	76	63	30.35	4500	11
220017	000941	01/18/71	C13	70	DODG	MONAC	9621	383	8	0	1	0	2	1	1	0	76	63	30.35	4500	11
220098	001213	03/04/71	C13	70	PLYM	FURY	14816	383	8	0	1	0	2	1	1	0	69	60	30.70	4500	11
220113	001243	03/09/71	C13	70	CHRY	NEWPO	4729	383	8	0	1	0	2	1	1	0	70	64	30.50	4500	11
220156	001357	04/02/71	C13	70	DODG	CORON	14155	383	8	0	1	0	2	1	1	0	70	59	30.90	4000	9
220186	001431	04/20/71	C13	70	DODG	POLAR	14429	383	8	0	1	0	2	1	1	0	77	72	30.20	4500	11
220213	001560	05/13/71	C13	70	CHRY	NEWPO	11789	383	8	0	1	0	2	1	1	0	72	66	30.35	4500	11
220312	000815	08/03/71	C14	70	CHRY	NEWYO	10109	440	8	0	1	0	4	1	1	0	78	74	30.40	5000	11
220349	000850	08/07/71	C14	70	CHRY	NEWYO	19317	440	8	0	1	0	4	1	1	0	85	78	30.53	5000	11
220251	001608	05/26/71	C15	70	PLYM	DUSTE	12252	340	8	0	1	0	4	1	1	0	76	74	30.50	3500	8
220010	000934	01/18/71	C17	70	DODG	MONAC	9551	383	8	0	1	0	4	1	1	0	68	61	30.30	4500	11
220121	001273	03/16/71	C17	70	PLYM	FURY	7895	383	8	0	1	0	4	1	1	0	76	68	30.55	4500	11
220263	001653	06/07/71	C18	70	DODG	CHALL	14328	383	8	0	1	0	4	1	1	0	78	73	30.40	4000	9
220326	001862	08/10/71	C18	70	DODG	CHALL	15367	383	8	0	1	0	4	1	1	0	78	72	30.48	4000	9
220008	000929	01/15/71	C19	70	DODG	CHALL	5683	440	8	0	1	0	4	1	1	0	75	66	30.85	4000	9
220266	001645	06/04/71	C19	70	DODG	CORON	7914	440	8	0	1	0	4	1	1	0	75	71	30.60	4000	9
220087	001201	03/03/71	F30	70	FORD	MAVER	14300	170	6	0	0	0	1	1	1	0	69	60	30.65	2750	4
220257	001622	05/28/71	F30	70	FORD	MAVER	6296	170	6	3	1	0	1	1	1	0	70	66	30.45	2750	4
220294	001788	07/26/71	F30	70	FORD	MAVER	14726	170	6	3	1	0	1	1	1	0	82	78	30.40	2750	4
220296	000843	08/06/71	F30	70	FORD	MAVER	9795	170	6	3	0	0	1	1	1	0	83	77	30.52	2750	4
220306	001901	08/18/71	F30	70	FORD	MAVER	14603	170	6	3	0	0	1	1	1	0	85	77	30.46	2750	4
220353	001876	08/12/71	F30	70	FORD	MAVER	33528	170	6	3	1	0	1	1	1	0	81	77	30.45	2750	4
220031	001061	02/08/71	F32	70	FORD	MAVER	11166	200	6	3	1	0	1	1	1	0	70	61	30.65	2750	4
220114	001246	03/09/71	F32	70	FORD	MAVER	7485	200	6	0	1	0	1	1	1	0	71	64	30.50	2750	4
220117	001257	03/10/71	F32	70	FORD	MAVER	13230	200	6	0	0	0	1	1	1	0	72	64	30.60	2750	4
220140	001330	03/30/71	F32	70	FORD	MAVER	13040	200	6	0	1	0	1	1	1	0	69	60	30.70	2750	4
220161	001362	04/05/71	F32	70	FORD	MAVER	11068	200	6	0	1	0	1	1	1	0	72	63	30.70	2750	4
220211	001558	05/13/71	F32	70	FORD	MAVER	7735	200	6	0	1	0	1	1	1	0	70	65	30.35	2750	4
220004	000932	01/15/71	F33	70	FORD	MUSTA	8737	302	8	0	1	0	2	1	1	0	79	65	30.85	3500	8
220005	000930	01/15/71	F33	70	FORD	FALCO	4435	302	8	0	1	0	2	1	1	0	78	65	30.80	3500	8
220054	001096	02/11/71	F33	70	MERC	MONTG	12703	302	8	0	1	0	2	1	1	0	70	62	30.40	3500	8
220115	001247	03/09/71	F33	70	FORD	CUSTO	4931	302	8	3	1	0	2	1	1	0	72	65	30.50	4000	8
220142	001332	03/30/71	F33	70	FORD	TORIN	8442	302	8	0	1	0	2	1	1	0	69	60	30.70	3500	8
220148	001342	03/31/71	F33	70	FORD	GALAX	11271	302	8	0	1	0	2	1	1	0	72	65	30.50	4000	8
220168	001378	04/07/71	F33	70	FORD	FALCO	13114	302	8	0	1	0	2	1	1	0	71	61	30.90	3500	8
220192	001452	04/22/71	F33	70	FORD	MUSTA	10647	302	8	0	1	0	2	1	1	0	74	70	30.05	3500	8

HOUSTON

1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DB	WB	BAROM	INRT	HP
220221	001573	05/17/71	F33	70	FORD	MUSTA	6972	302	8	0	1	0	2	1	1	0	75	71	30.35	3500	8
220228	001583	05/19/71	F33	70	FORD	FAIRL	13072	302	8	3	1	0	2	1	1	0	79	74	30.42	3500	8
220235	001591	05/20/71	F33	70	FORD	FALCO	14202	302	8	0	1	0	2	1	1	0	77	71	30.50	3500	8
220249	001606	05/25/71	F33	70	FORD	MUSTA	12195	302	8	0	1	0	2	1	1	0	78	74	30.45	3500	8
220269	001655	06/08/71	F33	70	FORD	LDTRU	14855	302	8	0	1	0	2	1	1	0	75	71	30.45	4000	8
220289	001791	07/21/71	F33	70	FORD	TORIN	11166	302	8	0	1	0	2	1	1	0	84	78	30.50	3500	8
220316	000825	08/04/71	F33	70	FORD	FAIRL	12860	302	8	3	1	0	2	1	1	0	75	73	30.50	3500	8
220002	000926	01/13/71	F34	70	FORD	GALAX	5636	351	8	0	1	0	2	1	1	0	72	70	30.45	4000	9
220110	001234	03/08/71	F34	70	FORD	GALAX	8433	351	8	0	1	0	2	1	1	0	69	60	30.75	4000	9
220120	001269	03/15/71	F34	70	FORD	CUSTO	14156	351	8	3	0	0	2	1	1	0	70	61	30.50	4000	9
220127	001306	03/24/71	F34	70	MERC	COUGA	14700	351	8	0	1	0	2	1	1	0	71	63	30.50	3500	9
220147	001340	03/31/71	F34	70	FORD	GALAX	13199	351	8	0	1	0	2	1	1	0	70	63	30.50	4000	9
220167	001376	04/07/71	F34	70	FORD	TORIN	14451	351	8	0	1	0	2	1	1	0	70	60	30.90	4000	9
220171	001386	04/08/71	F34	70	FORD	GALAX	8948	351	8	0	1	0	2	1	1	0	75	65	30.80	4000	9
220226	001579	05/18/71	F34	70	MERC	COUGA	12118	351	8	0	1	0	2	1	1	0	76	71	30.26	3500	9
220238	001595	05/21/71	F34	70	FORD	LTD	9288	351	8	0	1	0	2	1	1	0	76	72	30.50	4000	9
220241	001598	05/24/71	F34	70	FORD	LTD	11613	351	8	0	1	0	2	1	1	0	77	75	30.20	4000	9
220243	001600	05/24/71	F34	70	FORD	LTD	14416	351	8	0	1	0	2	1	1	0	77	75	30.20	4000	9
220246	001603	05/25/71	F34	70	MERC	COUGA	9719	351	8	0	1	0	2	1	1	0	70	67	30.45	3500	9
220253	001610	05/26/71	F34	70	MERC	COUGA	14053	351	8	0	1	0	2	1	1	0	80	76	30.52	3500	9
220260	001626	05/28/71	F34	70	FORD	GALAX	12678	351	8	0	1	0	2	1	1	0	76	71	30.45	4000	9
220283	001754	07/02/71	F34	70	FORD	GALAX	8066	351	8	0	1	0	2	1	1	0	80	76	30.55	4000	9
220284	001785	07/23/71	F34	70	FORD	GALAX	13225	351	8	0	1	0	2	1	1	0	80	76	30.40	4000	9
220287	001790	07/27/71	F34	70	FORD	GALAX	12876	351	8	0	1	0	2	1	1	0	82	78	30.45	4000	9
220288	001799	07/29/71	F34	70	FORD	RANCH	14519	351	8	0	1	0	2	1	1	0	82	79	30.50	4000	9
220313	001797	07/29/71	F34	70	FORD	GALAX	14738	351	8	0	1	0	2	1	1	0	80	78	30.45	4000	9
220112	001242	03/09/71	F35	70	FORD	RANCH	10276	390	8	0	1	0	2	1	1	0	69	64	30.50	4500	11
220152	001351	04/01/71	F35	70	FORD	LTD	9347	390	8	0	1	0	2	1	1	0	71	65	30.40	4500	11
220159	001360	04/05/71	F35	70	FORD	LTD	11021	390	8	0	1	0	2	1	1	0	70	62	30.70	4500	11
220178	001412	04/16/71	F35	70	FORD	LTD	9330	390	8	0	1	0	2	1	1	0	70	64	30.25	4500	11
220219	001571	05/17/71	F35	70	MERC	MONTR	8172	390	8	0	1	0	2	1	1	0	74	70	30.35	4500	11
220232	001588	05/20/71	F35	70	FORD	GALAX	7111	390	8	0	1	0	2	1	1	0	74	69	30.50	4500	11
220245	001602	05/24/71	F35	70	FORD	LTD	10756	390	8	0	1	0	2	1	1	0	78	76	30.24	4500	11
220255	001612	05/26/71	F35	70	FORD	RANCH	9072	390	8	0	1	0	2	1	1	0	80	76	30.54	4500	11
220270	001656	06/08/71	F35	70	FORD	XL	10442	390	8	0	1	0	2	1	1	0	76	72	30.45	4000	9
220274	001728	06/24/71	F35	70	FORD	LTD	10324	390	8	0	1	0	2	1	1	0	77	73	30.45	4500	11
220276	001730	06/24/71	F35	70	FORD	LTD	12983	390	8	0	1	0	2	1	1	0	77	73	30.45	4500	11
220195	001460	04/23/71	F36	70	FORD	THUND	14361	429	8	0	1	0	4	1	1	0	84	75	30.10	5000	11
220248	001605	05/25/71	F36	70	FORD	THUND	14061	429	8	0	1	0	4	1	1	0	77	72	30.45	5000	11
220303	001860	08/09/71	F36	70	FORD	THUND	11057	429	8	0	1	0	4	1	1	0	84	79	30.55	5000	11
220324	000824	08/04/71	F36	70	FORD	LTD	7039	429	8	0	1	0	4	1	1	0	75	73	30.50	4500	11
220358	001898	08/18/71	F36	70	MERC	MARQU	25476	429	8	0	1	0	4	1	1	0	80	71	30.45	4500	11
220107	001231	03/05/71	F37	70	FORD	F-100	11326	240	6	3	1	0	1	1	1	0	73	65	30.45	4000	8
220310	001796	07/28/71	F37	70	FORD	LDTRU	4565	240	6	3	0	0	1	1	1	0	86	79	30.47	4000	8
220066	001120	02/15/71	F38	70	FORD	FALCO	11812	250	6	3	0	0	1	1	1	0	76	64	30.40	3500	8
220204	001512	05/05/71	F38	70	FORD	MAVER	10786	250	6	0	1	0	1	1	1	0	68	64	30.25	3000	8
220278	001743	06/29/71	F38	70	FORD	FALCO	14819	250	6	0	0	0	1	1	1	0	77	73	30.44	3500	8
220279	001744	06/29/71	F38	70	FORD	FALCO	14226	250	6	0	0	0	1	1	1	0	77	73	30.45	3500	8
220311	001801	07/29/71	F38	70	FORD	MAVER	14409	250	6	0	1	0	1	1	1	0	84	79	30.50	3000	8
220244	001601	05/24/71	F40	70	FORD	XL	12277	351	8	0	1	0	4	1	1	0	77	75	30.24	4000	9

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HOUSTON CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BAROM	INRT	HP
220291	001793	07/28/71	F40	70	FORD	TURIN	14933	351	8	0	1	0	4	1	1	0	80	78	30.48	4000	9
220208	001553	05/12/71	F41	70	FORD	LDTRU	13145	360	8	0	0	0	2	1	1	0	77	73	30.30	4000	8
220330	001882	08/12/71	F41	70	FORD	LDTRU	26943	360	8	3	1	0	2	1	1	0	86	80	30.30	4000	8
220340	001873	08/12/71	F41	70	FORD	LDTRU	20738	360	8	0	1	0	2	1	1	0	76	72	30.40	4000	8
220375	001881	08/12/71	F41	70	FORD	LDTRU	12391	360	8	3	0	0	2	1	1	0	86	80	30.33	4000	8
220118	001258	03/10/71	F45	70	FORD	LTD	13600	429	8	0	1	0	2	1	1	0	72	64	30.60	4500	11
220212	001559	05/13/71	F45	70	MERC	MARQU	5455	429	8	0	1	0	2	1	1	0	70	65	30.35	4500	11
220254	001611	05/26/71	F45	70	FORD	LTD	14621	429	8	0	1	0	2	1	1	0	80	76	30.54	4500	11
220293	000823	08/04/71	F45	70	MERC	MARQU	8433	429	8	0	1	0	2	1	1	0	80	78	30.45	4500	11
220299	001808	07/31/71	F47	70	LINC	CONTI	4534	460	8	0	1	0	4	1	2	0	75	70	30.50	5500	11
220341	001868	08/11/71	F47	70	LINC	CONTI	16700	460	8	0	1	0	4	1	2	0	78	72	30.48	5500	11
220091	001206	03/03/71	G51	70	CHEV	NOVA	11845	230	6	0	1	0	1	1	1	0	71	61	30.70	3500	8
220290	000851	08/07/71	G51	70	CHEV	NOVA	12203	230	6	0	0	0	1	1	1	0	86	80	30.53	3500	8
220329	000816	08/03/71	G51	70	CHEV	NOVA	8973	230	6	3	0	0	1	1	1	0	78	75	30.40	3500	8
220360	001891	08/16/71	G51	70	CHEV	CHEVY	19685	230	6	3	0	0	1	1	1	0	84	77	30.50	3500	8
220377	001894	08/17/71	G51	70	CHEV	NOVA	22763	230	6	3	0	0	1	1	1	0	78	76	30.45	3500	8
220172	001387	04/12/71	G52	70	CHEV	NOVA	11082	250	6	3	1	0	1	1	1	0	74	63	30.70	3500	8
220182	001418	04/16/71	G52	70	CHEV	MALIB	12357	250	6	3	1	0	1	1	1	0	74	69	30.20	3500	8
220198	001476	04/28/71	G52	70	CHEV	NOVA	14339	250	6	3	0	0	1	1	1	0	77	73	30.10	3500	8
220218	001570	05/17/71	G52	70	CHEV	NOVA	6493	250	6	0	0	0	1	1	1	0	71	68	30.35	3500	8
220237	001594	05/21/71	G52	70	CHEV	NOVA	14323	250	6	0	1	0	1	1	1	0	75	72	30.50	3500	8
220271	001667	06/10/71	G52	70	CHEV	CAMAR	15002	250	6	3	1	0	1	1	1	0	76	73	30.40	3500	8
220277	001731	06/24/71	G52	70	CHEV	LDTRU	14575	250	6	3	0	0	1	1	1	0	77	73	30.45	4000	8
220300	000844	08/06/71	G52	70	PONT	FIREB	10038	250	6	0	1	0	1	1	1	0	85	79	30.48	3500	8
220320	001810	07/31/71	G52	70	CHEV	CHEVT	12055	250	6	3	0	0	1	1	1	0	78	71	30.50	4000	8
220342	001869	08/11/71	G52	70	CHEV	NOVA	38887	250	6	0	0	0	1	1	1	0	82	78	30.50	3500	8
220346	000852	08/07/71	G52	70	CHEV	BISCA	13232	250	6	0	0	0	1	1	1	0	84	76	30.50	4000	8
220350	001853	08/07/71	G52	70	CHEV	CHEVE	19451	250	6	0	0	0	1	1	1	0	86	78	30.51	3500	8
220351	001854	08/07/71	G52	70	CHEV	BISCA	15694	250	6	0	0	0	1	1	1	0	86	79	30.49	4000	8
220378	002054	10/01/71	G52	70	CHEV	CHEVT	20298	250	6	3	0	0	1	1	1	0	74	72	30.40	4000	8
220001	000924	01/12/71	G53	70	CHEV	CAMAR	5054	307	8	0	1	0	2	1	1	0	74	70	30.55	3500	8
220028	001056	02/08/71	G53	70	CHEV	MALIB	13377	307	8	0	1	0	2	1	1	0	68	60	30.70	3500	8
220030	001058	02/08/71	G53	70	CHEV	MALIB	11437	307	8	3	1	0	2	1	1	0	69	60	30.80	3500	8
220037	001072	02/09/71	G53	70	CHEV	CAMAR	5177	307	8	0	1	0	2	1	1	0	71	62	30.95	3500	8
220042	001084	02/10/71	G53	70	CHEV	CAMAR	4540	307	8	0	1	0	2	1	1	0	72	63	30.70	3500	8
220043	001085	02/10/71	G53	70	CHEV	CAMAR	5758	307	8	0	1	0	2	1	1	0	71	62	30.80	3500	8
220044	001086	02/10/71	G53	70	CHEV	CAMAR	4365	307	8	0	1	0	2	1	1	0	73	62	30.80	3500	8
220045	001087	02/10/71	G53	70	CHEV	CAMAR	4001	307	8	0	1	0	2	1	1	0	72	63	30.80	3500	8
220065	001119	02/15/71	G53	70	CHEV	CHEVE	14347	307	8	0	1	0	2	1	1	0	71	64	30.45	3500	8
220067	001121	02/15/71	G53	70	CHEV	CAMAR	4083	307	8	0	1	0	2	1	1	0	77	65	30.40	3500	8
220076	001171	02/25/71	G53	70	CHEV	CAMAR	6634	307	8	0	1	0	2	1	1	0	72	69	30.10	3500	8
220133	001315	03/25/71	G53	70	CHEV	CHEVE	7514	307	8	3	1	0	2	1	1	0	71	66	30.15	3500	8
220175	001395	04/14/71	G53	70	CHEV	NOVA	14236	307	8	3	1	0	2	1	1	0	68	59	30.65	3500	8
220179	001413	04/16/71	G53	70	CHEV	MALIB	7985	307	8	3	1	0	2	1	1	0	70	64	30.25	3500	8
220210	001556	05/13/71	G53	70	CHEV	NOVA	13305	307	8	3	1	0	2	1	1	0	68	63	30.35	3500	8
220321	002100	10/13/71	G53	70	CHEV	CHEVE	16056	307	8	0	1	0	2	1	1	0	72	66	30.50	3500	8
220331	000814	08/03/71	G53	70	CHEV	CHEVE	14983	307	8	3	0	0	2	1	1	0	78	71	30.40	3500	8
220332	002091	10/21/71	G53	70	CHEV	MALIB	15138	307	8	0	1	0	2	1	1	0	74	67	30.45	3500	8
220343	001890	08/16/71	G53	70	CHEV	NOVA	20286	307	8	3	0	0	2	1	1	0	81	77	30.50	3500	8
220361	001879	08/12/71	G53	70	CHEV	CHEVE	22603	307	8	3	1	0	2	1	1	0	83	75	30.45	3500	8

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220380	002080	10/07/71	G53	70	CHEV	CAMAR	25961	307	8	3	1	0	2	1	1	0	86	74	30.55	3500	8
220381	002064	10/05/71	G53	70	CHEV	MALIB	6919	307	8	0	1	0	2	1	1	0	78	74	30.55	3500	8
220014	000953	01/21/71	G55	70	CHEV	IMPAL	24363	350	8	0	1	0	4	1	1	0	68	61	30.60	4500	11
220090	001204	03/03/71	G55	70	CHEV	CHEVR	7859	350	8	0	1	0	4	1	1	0	70	61	30.70	4500	11
220097	001212	03/03/71	G55	70	CHEV	CAPRI	5453	350	8	0	1	0	4	1	1	0	68	60	30.70	4500	11
220099	001214	03/04/71	G55	70	CHEV	CHEVR	10496	350	8	0	1	0	4	1	1	0	69	60	30.70	4500	11
220141	001331	03/30/71	G55	70	CHEV	IMPAL	5006	350	8	0	1	0	4	1	1	0	69	60	30.70	4500	11
220158	001359	04/02/71	G55	70	CHEV	NOVA	8187	350	8	4	1	0	4	1	1	0	70	60	30.90	3500	9
220163	001366	04/06/71	G55	70	CHEV	CAMAR	14315	350	8	4	1	0	4	1	1	0	71	60	30.90	3500	9
220169	001379	04/07/71	G55	70	CHEV	IMPAL	11771	350	8	0	1	0	4	1	1	0	73	63	30.90	4500	11
220174	001390	04/13/71	G55	70	CHEV	IMPAL	12666	350	8	0	1	0	4	1	1	0	72	63	30.60	4500	11
220196	001456	04/23/71	G55	70	CHEV	MONTE	13731	350	8	0	1	0	4	1	1	0	79	75	30.10	4000	9
220199	001488	04/29/71	G55	70	CHEV	MONTE	12625	350	8	0	1	0	4	1	1	0	70	63	30.30	4000	9
220220	001572	05/17/71	G55	70	CHEV	IMPAL	6553	350	8	0	1	0	4	1	1	0	75	71	30.35	4500	11
220224	001577	05/18/71	G55	70	CHEV	IMPAL	5217	350	8	0	1	0	4	1	1	0	74	69	30.25	4500	11
220239	001596	05/21/71	G55	70	CHEV	CAMAR	9881	350	8	0	1	0	4	1	1	0	77	74	30.50	3500	9
220242	001599	05/24/71	G55	70	CHEV	LDTRU	8307	350	8	0	1	0	4	1	1	0	77	74	30.20	4500	9
220265	001641	06/03/71	G55	70	CHEV	CHEVR	12321	350	8	0	1	0	4	1	1	0	77	74	30.60	4500	11
220272	001669	06/10/71	G55	70	CHEV	IMPAL	11107	350	8	0	1	0	4	1	1	0	79	76	30.40	4500	11
220297	001795	07/28/71	G55	70	CHEV	CHEVT	10439	350	8	3	1	0	4	1	1	0	82	78	30.50	4500	9
220371	001887	08/13/71	G55	70	CHEV	IMPAL	10712	350	8	0	1	0	4	1	1	0	80	76	30.40	4500	11
220016	000944	01/20/71	G57	70	CHEV	BELAI	23945	350	8	0	1	0	2	1	1	0	68	60	30.90	4500	11
220019	000945	01/20/71	G57	70	CHEV	BELAI	19411	350	8	0	1	0	2	1	1	0	68	60	30.90	4500	11
220029	001057	02/08/71	G57	70	CHEV	IMPAL	10132	350	8	0	1	0	2	1	1	0	68	60	30.80	4500	11
220032	001063	02/08/71	G57	70	CHEV	CAMAR	8452	350	8	0	1	0	2	1	1	0	70	61	30.70	3500	9
220034	001067	02/09/71	G57	70	CHEV	CAMAR	10966	350	8	0	1	0	2	1	1	0	69	61	30.95	3500	9
220038	001073	02/09/71	G57	70	CHEV	CAMAR	7264	350	8	0	1	0	2	1	1	0	70	62	30.90	3500	9
220051	001093	02/11/71	G57	70	CHEV	CHEVR	12044	350	8	0	1	0	2	1	1	0	70	62	30.50	4500	11
220057	001101	02/11/71	G57	70	CHEV	IMPAL	4328	350	8	0	1	0	2	1	1	0	73	66	30.20	4500	11
220062	001113	02/12/71	G57	70	CHEV	MALIB	4159	350	8	0	1	0	2	1	1	0	72	63	30.60	4000	9
220064	001118	02/15/71	G57	70	CHEV	IMPAL	11788	350	8	0	1	0	2	1	1	0	70	63	30.45	4500	11
220086	001200	03/03/71	G57	70	CHEV	IMPAL	13417	350	8	0	1	0	2	1	1	0	69	60	30.65	4500	11
220100	001215	03/04/71	G57	70	CHEV	ELCAM	14468	350	8	0	1	0	2	1	1	0	69	61	30.80	4000	9
220138	001324	03/26/71	G57	70	CHEV	ELCAM	9721	350	8	0	1	0	2	1	1	0	77	68	30.60	4000	9
220157	001358	04/02/71	G57	70	CHEV	IMPAL	13042	350	8	0	1	0	2	1	1	0	70	60	30.90	4500	11
220184	001429	04/20/71	G57	70	CHEV	MONTE	9099	350	8	0	1	0	2	1	1	0	75	71	30.20	4000	9
220240	001597	05/21/71	G57	70	CHEV	CHEVE	13918	350	8	0	1	0	2	1	1	0	77	74	30.50	4000	9
220247	001604	05/25/71	G57	70	CHEV	MONTE	13023	350	8	0	1	0	2	1	1	0	77	72	30.45	4000	9
220250	001607	05/26/71	G57	70	CHEV	MONTE	14421	350	8	0	1	0	2	1	1	0	76	74	30.50	4000	9
220258	001623	05/28/71	G57	70	CHEV	IMPAL	10619	350	8	0	1	0	2	1	1	0	71	67	30.45	4500	11
220259	001625	05/28/71	G57	70	CHEV	IMPAL	14472	350	8	0	1	0	2	1	1	0	74	69	30.45	4500	11
220261	001628	06/01/71	G57	70	CHEV	IMPAL	8538	350	8	0	1	0	2	1	1	0	72	69	30.35	4500	11
220280	001747	06/29/71	G57	70	CHEV	IMPAL	14926	350	8	0	1	0	2	1	1	0	81	75	30.45	4500	11
220339	002010	09/16/71	G57	70	CHEV	IMPAL	13288	350	8	0	1	0	2	1	1	0	81	77	30.20	4500	11
220357	001888	08/13/71	G57	70	CHEV	CHEVT	7152	350	8	0	1	0	2	1	1	0	82	78	30.40	4500	9
220367	001878	08/12/71	G57	70	CHEV	MONTE	9255	350	8	0	1	0	2	1	1	0	83	75	30.45	4000	9
220318	000836	08/06/71	G60	70	CHEV	CHEVE	11040	402	8	0	1	0	4	1	1	0	77	71	30.50	4000	8
220352	001945	08/31/71	G60	70	CHEV	CHEVE	24571	402	8	0	1	0	4	1	1	0	82	78	30.45	4000	8
220366	001900	08/18/71	G60	70	CHEV	CHEVE	26850	402	8	0	1	0	4	1	1	0	83	75	30.47	4000	8
220356	001883	08/13/71	G65	70	CHEV	IMPAL	33074	454	8	0	1	0	4	1	1	0	76	74	30.40	4500	10

HOUSTON

1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	B'L	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DB	WB	BAROM	INRT	HP
220072	001140	02/18/71	G61	70	PONT	LEMAN	13405	350	8	0	1	0	2	1	1	0	68	60	30.55	4000	9
220083	001196	03/03/71	G61	70	PONT	LEMAN	14403	350	8	0	1	0	2	1	1	0	68	60	30.65	4000	9
220085	001198	03/03/71	G61	70	PONT	CATAL	13530	350	8	0	1	0	2	1	1	0	68	60	30.65	4500	11
220094	001209	03/03/71	G61	70	PONT	LEMAN	9934	350	8	0	1	0	2	1	1	0	72	63	30.70	4000	9
220095	001210	03/03/71	G61	70	PONT	LEMAN	12422	350	8	0	1	0	2	1	1	0	68	60	30.70	4000	9
220096	001211	03/03/71	G61	70	PONT	LEMAN	14211	350	8	0	1	0	2	1	1	0	69	60	30.70	4000	9
220166	001373	04/07/71	G61	70	PONT	LEMAN	9378	350	8	0	1	0	2	1	1	0	69	58	30.90	4000	9
220191	001446	04/22/71	G61	70	PONT	CATAL	12574	350	8	0	1	0	2	1	1	0	76	71	30.05	4500	11
220292	000831	08/05/71	G61	70	PONT	FIREB	13931	350	8	0	1	0	2	1	1	0	86	78	30.53	4000	9
220305	001794	07/28/71	G61	70	PONT	LEMAN	11245	350	8	0	1	0	2	1	1	0	82	78	30.50	4000	9
220084	001197	03/03/71	G62	70	PONT	CATAL	11645	400	8	0	1	0	2	1	1	0	68	60	30.65	4500	11
220103	001224	03/05/71	G62	70	PONT	CATAL	12416	400	8	0	1	0	2	1	1	0	69	61	30.45	4500	11
220145	001338	03/30/71	G62	70	PONT	CATAL	12746	400	8	0	1	0	2	1	1	0	75	66	30.70	4500	11
220302	001800	07/29/71	G62	70	PONT	CATAL	17617	400	8	0	1	0	2	1	1	0	82	79	30.50	4500	11
220304	001864	08/10/71	G62	70	PONT	CATAL	14161	400	8	0	1	0	2	1	1	0	80	74	30.50	4500	11
220319	000819	08/03/71	G62	70	PONT	CATAL	12539	400	8	0	1	0	2	1	1	0	80	76	30.42	4500	11
220104	001227	03/05/71	G68	70	PONT	GRAND	14454	400	8	0	1	0	4	1	1	0	71	62	30.45	4500	11
220128	001307	03/24/71	G68	70	PONT	CATAL	13623	400	8	0	1	0	4	1	1	0	71	63	30.50	4500	11
220135	001319	03/25/71	G68	70	PONT	GRAND	12261	400	8	0	1	0	4	1	1	0	70	61	30.60	4500	11
220139	001328	03/29/71	G68	70	PONT	GRAND	7658	400	8	0	1	0	4	1	1	0	74	66	30.55	4500	11
220153	001352	04/01/71	G68	70	PONT	GTO	14623	400	8	3	1	0	4	1	1	0	72	66	30.40	4000	9
220214	001562	05/13/71	G68	70	PONT	GTO	11816	400	8	0	1	0	4	1	1	0	74	67	30.35	4000	9
220363	001902	08/18/71	G68	70	PONT	GRAND	11811	400	8	0	1	0	4	1	1	0	86	80	30.46	4500	11
220364	001885	08/13/71	G68	70	PONT	GTO	42100	400	8	0	1	0	4	1	1	0	77	75	30.40	4000	9
220033	001066	02/09/71	G70	70	PONT	BONNE	8945	455	8	0	1	0	4	1	1	0	68	61	30.80	5000	11
220338	001906	08/19/71	G70	70	PONT	GRAND	24857	455	8	0	1	0	4	1	1	0	84	80	30.50	4500	11
220105	001229	03/05/71	G66	70	OLDS	CUTLA	7677	350	8	0	1	0	2	1	1	0	72	64	30.45	4000	9
220143	001336	03/30/71	G66	70	OLDS	CUTLA	9317	350	8	0	1	0	2	1	1	0	75	65	30.70	4000	9
220146	001339	03/31/71	G66	70	OLDS	CUTLA	8286	350	8	0	1	0	2	1	1	0	70	63	30.50	4000	9
220149	001345	03/31/71	G66	70	OLDS	CUTLA	9762	350	8	0	1	0	2	1	1	0	75	67	30.50	4000	9
220155	001356	04/01/71	G66	70	OLDS	CUTLA	7291	350	8	0	1	0	2	1	1	0	73	68	30.45	4000	9
220160	001361	04/05/71	G66	70	OLDS	CUTLA	10311	350	8	0	1	0	2	1	1	0	71	62	30.70	4000	9
220165	001370	04/06/71	G66	70	OLDS	CUTLA	8400	350	8	0	1	0	2	1	1	0	75	65	30.90	4000	9
220188	001438	04/21/71	G66	70	OLDS	DELTA	7390	350	8	0	1	0	2	1	1	0	73	67	30.20	4500	11
220256	001614	05/27/71	G66	70	OLDS	CUTLA	14477	350	8	0	1	0	2	1	1	0	75	73	30.46	4000	9
220144	001337	03/30/71	G67	70	OLDS	CUTLA	13124	455	8	0	1	0	4	1	1	0	75	66	30.70	4500	11
220131	001415	04/16/71	G67	70	OLDS	NINET	9962	455	8	0	1	0	4	1	1	0	73	68	30.20	5000	11
220273	000679	06/14/71	G67	70	OLDS	NINET	25291	455	8	0	1	0	4	1	1	0	76	72	30.30	5000	11
220315	001802	07/29/71	G67	70	OLDS	DELTA	14969	455	8	0	1	0	4	1	1	0	86	80	30.50	5000	11
220372	001893	08/17/71	G67	70	OLDS	NINET	26911	455	8	0	1	0	4	1	1	0	78	74	30.48	5000	11
220106	001230	03/05/71	G72	70	OLDS	CUTLA	14241	350	8	0	1	0	4	1	1	0	72	64	30.45	4000	9
220177	001410	04/15/71	G72	70	OLDS	CUTLA	13435	350	8	0	1	0	4	1	1	0	80	69	30.50	4000	9
220180	001414	04/16/71	G72	70	OLDS	CUTLA	10048	350	8	0	1	0	4	1	1	0	71	66	30.20	4000	9
220119	001262	03/11/71	G73	70	OLDS	DELTA	14215	455	8	0	1	0	2	1	1	0	68	60	30.40	5000	11
220187	001435	04/21/71	G73	70	OLDS	DELTA	13081	455	8	0	1	0	2	1	1	0	69	64	30.20	5000	11
220323	000811	08/02/71	G73	70	OLDS	DELTA	4216	455	8	0	1	0	2	1	1	0	78	72	30.41	5000	11
220344	001892	08/17/71	G73	70	OLDS	DELTA	17800	455	8	0	1	0	2	1	1	0	76	74	30.48	5000	11
220369	001871	08/11/71	G73	70	OLDS	EIGHT	30728	455	8	0	1	0	2	1	1	0	82	72	30.50	5000	11
220015	000955	01/21/71	G71	70	BUIC	SKYLA	10960	350	8	0	1	0	4	1	1	0	70	61	30.60	4000	9
220046	001088	02/11/71	G71	70	BUIC	SKYLA	12490	350	8	0	1	0	4	1	1	0	69	58	30.50	4000	9

1970 VEHICLES

HOUSTON CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	BARON	INRT	HP
220048	001090	02/11/71	G71	70	BUIC	LESAB	11912	350	8	0	1	0	4	1	1	0	68	60	30.50	5000	11
220053	001095	02/11/71	G71	70	BUIC	LESAB	11890	350	8	0	1	0	4	1	1	0	71	62	30.50	5000	11
220069	001129	02/16/71	G71	70	BUIC	LESAB	8687	350	8	0	1	0	4	1	1	0	77	68	30.45	5000	11
220301	001872	08/11/71	G71	70	BUIC	LESAB	7575	350	8	0	1	0	4	1	1	0	86	80	30.65	5000	11
220049	001091	02/11/71	G74	70	BUIC	SKYLA	14592	350	8	0	1	0	2	1	1	0	69	61	30.50	4000	9
220050	001092	02/11/71	G74	70	BUIC	SKYLA	11776	350	8	0	1	0	2	1	1	0	69	61	30.50	4000	9
220052	001094	02/11/71	G74	70	BUIC	SKYLA	13196	350	8	0	1	0	2	1	1	0	70	62	30.50	4000	9
220055	001098	02/11/71	G74	70	BUIC	SKYLA	13483	350	8	0	1	0	2	1	1	0	72	63	30.35	4000	9
220056	001099	02/11/71	G74	70	BUIC	SKYLA	12484	350	8	0	1	0	2	1	1	0	72	63	30.35	4000	9
220075	001153	02/19/71	G74	70	BUIC	SKYLA	10997	350	8	0	1	0	2	1	1	0	76	69	30.35	4000	9
220134	001316	03/25/71	G74	70	BUIC	SKYLA	9427	350	8	0	1	0	2	1	1	0	72	67	30.15	4000	9
220003	000931	01/15/71	G75	70	BUIC	ELECT	17706	455	8	0	1	0	4	1	1	0	79	65	30.85	5000	11
220035	001068	02/09/71	G75	70	BUIC	ELECT	12887	455	8	0	1	0	4	1	1	0	70	61	30.90	5000	11
220058	001102	02/12/71	G75	70	BUIC	ELECT	15537	455	8	0	1	0	4	1	1	0	69	61	30.40	5000	11
220060	001105	02/12/71	G75	70	BUIC	ELECT	14393	455	8	0	1	0	4	1	1	0	70	61	30.45	5000	11
220061	001106	02/12/71	G75	70	BUIC	ELECT	13544	455	8	0	1	0	4	1	1	0	70	61	30.45	5000	11
220068	001122	02/15/71	G75	70	BUIC	ELECT	13011	455	8	0	1	0	4	1	1	0	69	62	30.50	5000	11
220070	001130	02/17/71	G75	70	BUIC	ELECT	12000	455	8	0	1	0	4	1	1	0	70	62	30.60	5000	11
220077	001175	02/26/71	G75	70	BUIC	ELECT	13683	455	8	0	1	0	4	1	1	0	73	68	30.10	5000	11
220078	001176	02/26/71	G75	70	BUIC	RIVIE	12577	455	8	0	1	0	4	1	1	0	74	69	30.10	5000	11
220079	001190	03/02/71	G75	70	BUIC	RIVIE	14005	455	8	0	1	0	4	1	1	0	69	62	30.15	5000	11
220122	001288	03/18/71	G75	70	BUIC	WILDC	10097	455	8	0	1	0	4	1	1	0	72	68	30.30	5000	11
220089	001203	03/03/71	G77	70	CADI	DEVIL	14686	472	8	0	1	0	4	1	1	0	70	61	30.70	5500	11
220123	001302	03/24/71	G77	70	CADI	DEVIL	13027	472	8	0	1	0	4	1	1	0	69	62	30.50	5500	11
220124	001303	03/24/71	G77	70	CADI	FLEET	11423	472	8	0	1	0	4	1	1	0	69	62	30.50	5500	11
220125	001304	03/24/71	G77	70	CADI	FLEET	13367	472	8	0	1	0	4	1	1	0	70	63	30.50	5500	11
220126	001305	03/24/71	G77	70	CADI	DEVIL	11161	472	8	0	1	0	4	1	1	0	70	62	30.50	5500	11
220129	001311	03/25/71	G77	70	CADI	DEVIL	12086	472	8	0	1	0	4	1	1	0	70	64	30.20	5500	11
220130	001312	03/25/71	G77	70	CADI	FLEET	10420	472	8	0	1	0	4	1	1	0	70	64	30.20	5500	11
220132	001314	03/25/71	G77	70	CADI	FLEET	13672	472	8	0	1	0	4	1	1	0	71	65	30.20	5500	11
220073	001138	02/17/71	V82	70	VOLK	SQBK	5207	97	4	0	0	1	0	1	1	0	73	63	30.65	2500	7
220080	001191	03/02/71	V82	70	VOLK	SQBK	11160	97	4	4	1	1	0	1	1	0	69	62	30.15	2500	7
220137	001323	03/26/71	V82	70	VOLK	FTBK	10750	97	4	4	0	1	0	1	1	0	72	63	30.60	2500	7
220025	001043	02/04/71	V83	70	VOLK	BUS	14063	97	4	4	0	0	1	1	1	0	71	62	30.25	3000	12
220026	001045	02/04/71	V83	70	VOLK	BEETL	10315	97	4	4	0	0	1	1	1	0	71	62	30.25	2250	6
220047	001089	02/11/71	V83	70	VOLK	BEETL	9044	97	4	4	0	0	1	1	1	0	68	60	30.50	2250	6
220059	001103	02/12/71	V83	70	VOLK	BEETL	8776	97	4	4	0	0	1	1	1	0	69	61	30.45	2250	6
220092	001207	03/03/71	V83	70	VOLK	BEETL	4843	97	4	4	0	0	1	1	1	0	72	63	30.70	2250	6
220173	001388	04/12/71	V83	70	VOLK	BEETL	12617	97	4	4	0	0	1	1	1	0	74	64	30.70	2250	6
220183	001419	04/16/71	V83	70	VOLK	BEETL	14472	97	4	4	0	0	1	1	1	0	74	70	30.15	2250	6
220189	001443	04/21/71	V83	70	VOLK	CAMPE	8235	97	4	4	1	0	1	1	1	0	81	76	30.00	3000	12
220190	001445	04/22/71	V83	70	VOLK	BEETL	12408	97	4	4	1	0	1	1	1	0	75	70	30.05	2250	6
220197	001466	04/26/71	V83	70	VOLK	BEETL	14635	97	4	4	0	0	1	1	1	0	77	71	30.20	2250	6
220200	001491	04/29/71	V83	70	VOLK	BEETL	14708	97	4	4	0	0	1	1	1	0	72	66	30.30	2250	6
220205	001524	05/06/71	V83	70	VOLK	BEETL	9374	97	4	4	0	0	1	1	1	0	76	73	30.15	2250	6
220206	001521	05/06/71	V83	70	VOLK	BEETL	13594	97	4	4	0	0	1	1	1	0	76	72	30.20	2250	6
220295	000827	08/05/71	V83	70	VOLK	BEETL	9610	97	4	0	0	0	1	1	1	0	75	73	30.43	2250	6
220314	001806	07/30/71	V83	70	VOLK	BEETL	14897	97	4	0	1	0	1	1	1	0	85	78	30.47	2250	6
220317	001877	08/12/71	V83	70	VOLK	KARMA	8729	97	4	0	0	0	1	1	1	0	83	75	30.45	2250	6
220373	001911	08/20/71	V83	70	VOLK	BEETL	8830	97	4	4	1	0	1	1	1	0	78	76	30.56	2250	6

TABLE A-3

Los Angeles

LOS ANGELES 1970 VEHICLES COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BCL	PCV	EXH	EVP	DB	WS	BAROM	INRT	HP
320098	100248	12/12/70	G71	70	BUIC	LESAB	7386	350	8	0	1	0	4	1	1	1	69	52	29.98	5000	11
320171	100342	12/23/70	G71	70	BUIC	SKYLA	5443	350	8	0	1	0	4	1	1	1	70	50	30.12	4000	9
320178	100366	12/24/70	G71	70	BUIC	SKYLA	5547	350	8	0	1	0	4	1	1	1	68	57	30.04	4000	9
320280	100472	01/08/71	G71	70	BUIC	SKYLA	7096	350	8	0	1	0	4	1	1	1	71	61	30.05	4000	9
320415	100889	02/17/71	G71	70	BUIC	SKYLA	9707	350	8	0	1	0	4	1	1	1	71	59	29.62	4000	9
320164	100367	12/24/70	G74	70	BUIC	SKYLA	6155	350	8	0	1	0	2	1	1	1	68	57	30.04	4000	9
320259	100424	01/06/71	G74	70	BUIC	SKYLA	9087	350	8	0	1	0	2	1	1	1	66	52	30.17	4000	9
320390	100709	02/04/71	G74	70	BUIC	SKYLA	8189	350	8	0	1	0	2	1	1	1	71	64	30.17	4000	9
320403	100828	02/13/71	G74	70	BUIC	SKYLA	12793	350	8	0	1	0	2	1	1	1	71	66	30.02	4000	9
320457	101462	03/24/71	G74	70	BUIC	SKYLA	11323	350	8	0	1	0	2	1	1	1	71	61	30.00	4000	9
320458	101442	03/23/71	G74	70	BUIC	SKYLA	7601	350	8	0	1	0	2	1	1	1	70	60	30.03	4000	9
320486	101837	04/20/71	G74	70	BUIC	SKYLA	4373	350	8	0	1	0	2	1	1	1	69	58	30.01	4000	9
320492	102947	07/13/71	G74	70	BUIC	SKYLA	4832	350	8	0	1	0	2	1	1	1	78	67	29.81	4000	9
320022	100058	11/25/70	G75	70	BUIC	ELECT	8069	455	8	0	1	0	4	1	1	1	74	64	30.02	5000	11
320103	100504	01/13/71	G75	70	BUIC	ELECT	6813	455	8	0	1	0	4	1	1	1	69	61	30.12	5000	11
320234	100441	01/07/71	G75	70	BUIC	ELECT	8313	455	8	0	1	0	4	1	1	1	67	57	30.23	5000	11
320264	100492	01/12/71	G75	70	BUIC	ELECT	4246	455	8	0	1	0	4	1	1	1	72	64	29.99	5000	11
320314	100550	01/16/71	G75	70	BUIC	ELECT	8039	455	8	0	1	0	4	1	1	1	68	60	30.22	5000	11
320320	100576	01/20/71	G75	70	BUIC	RIVIE	4663	455	8	0	1	0	4	1	1	1	68	62	29.92	5000	11
320331	100601	01/22/71	G75	70	BUIC	ELECT	6333	455	8	0	1	0	4	1	1	1	68	61	29.99	5000	11
320332	101362	03/19/71	G75	70	BUIC	RIVIE	14733	455	8	0	1	0	4	1	1	1	73	62	30.00	5000	11
320360	100867	02/16/71	G75	70	BUIC	ELECT	12295	455	8	0	1	0	4	1	1	1	72	59	29.82	5000	11
320366	100706	02/04/71	G75	70	BUIC	LESAB	9044	455	8	0	1	0	4	1	1	1	70	63	30.15	5000	11
320083	100215	12/10/70	G77	70	CADI	DEVIL	10117	472	8	0	1	0	4	1	1	1	69	60	30.23	5500	11
320128	100299	12/18/70	G77	70	CADI	DEVIL	9102	472	8	0	1	0	4	1	1	1	67	59	29.92	5500	11
320169	100298	12/18/70	G77	70	CADI	SEDAN	8902	472	8	0	1	0	4	1	1	1	68	59	29.90	5500	11
320206	100402	12/31/70	G77	70	CADI	DEVIL	7816	472	8	0	1	0	4	1	1	1	67	62	30.01	5500	11
320266	100724	02/05/71	G77	70	CADI	DEVIL	4110	472	8	0	1	0	4	1	1	1	72	60	30.09	5500	11
320296	101237	03/09/71	G77	70	CADI	DEVIL	9504	472	8	0	1	0	4	1	1	1	71	62	30.10	5500	11
320348	100603	01/22/71	G77	70	CADI	DEVIL	9038	472	8	0	1	0	4	1	1	1	72	61	30.00	5500	11
320408	101071	02/26/71	G77	70	CADI	DEVIL	10235	472	8	0	1	0	4	1	1	1	70	58	30.01	5500	11
320502	104125	10/30/71	G78	70	CADI	FLOOR	43536	500	8	0	1	0	4	1	1	1	65	54	30.42	5000	11
320153	100388	12/30/70	V82	70	VOLK	FTBK	4742	97	4	0	0	1	0	1	1	1	68	56	30.13	2500	7
320217	100612	01/23/71	V82	70	VOLK	FTBK	10500	97	4	4	0	1	0	1	1	1	68	61	29.95	2500	7
320363	101068	02/26/71	V82	70	VOLK	SQBK	7617	97	4	0	0	1	0	1	1	1	68	58	30.00	2500	7
320007	100032	11/19/70	V83	70	VOLK	BEETL	5344	97	4	0	0	0	1	1	1	1	74	66	29.89	2250	6
320014	100043	11/23/70	V83	70	VOLK	BEETL	5944	97	4	4	0	0	1	1	1	1	75	61	30.13	2250	6
320017	100052	11/24/70	V83	70	VOLK	BEETL	7815	97	4	4	0	0	1	1	1	1	75	63	29.98	2250	6
320034	100257	12/15/70	V83	70	VOLK	BEETL	7893	97	4	4	0	0	1	1	1	1	69	60	30.18	2250	6
320039	100198	12/09/70	V83	70	VOLK	BEETL	8209	97	4	4	0	0	1	1	1	1	70	62	30.06	2250	6
320045	100147	12/04/70	V83	70	VOLK	BUS	7748	97	4	4	0	0	1	1	1	1	70	60	30.28	3000	12
320055	100199	12/09/70	V83	70	VOLK	BEETL	6725	97	4	4	0	0	1	1	1	1	70	62	30.04	2250	6
320091	100200	12/09/70	V83	70	VOLK	BEETL	6731	97	4	4	0	0	1	1	1	1	72	63	30.04	2250	6
320095	100201	12/09/70	V83	70	VOLK	BUS	8742	97	4	4	0	0	1	1	1	1	70	64	30.06	3000	12
320097	100148	12/04/70	V83	70	VOLK	BEETL	6794	97	4	4	0	0	1	1	1	1	68	55	30.27	2250	6
320101	100244	12/12/70	V83	70	VOLK	BEETL	6570	97	4	4	0	0	1	1	1	1	68	54	30.00	2250	6
320108	100245	12/12/70	V83	70	VOLK	BEETL	4994	97	4	4	0	0	1	1	1	1	69	54	29.97	2250	6
320130	100106	12/02/70	V83	70	VOLK	BUS	8487	97	4	4	0	0	1	1	1	1	70	60	30.19	3000	12
320131	100107	12/02/70	V83	70	VOLK	BEETL	9736	97	4	4	0	0	1	1	1	1	71	60	30.17	2250	6
320132	100108	12/02/70	V83	70	VOLK	BEETL	8836	97	4	4	0	0	1	1	1	1	70	62	30.16	2250	6

LOS ANGELES 1970 VEHICLES COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
320081	100232	12/11/70	GSS	70	CHEV	LOIRU	5647	350	8	0	0	0	4	1	1	1	68	53	30.15	4500	9
320133	100110	12/02/70	GSS	70	CHEV	MONTE	4473	350	8	0	1	0	4	1	1	1	71	63	30.20	4000	9
320157	100348	12/23/70	GSS	70	CHEV	CHEVR	9028	350	8	0	1	0	4	1	1	1	68	58	30.12	4500	11
320168	100503	01/13/71	GSS	70	CHEV	CORVE	9443	350	8	0	1	0	4	1	1	1	67	60	30.13	3500	9
320192	100375	12/29/70	GSS	70	CHEV	IMPAL	7124	350	8	0	1	0	4	1	1	1	68	50	30.12	4500	11
320202	100330	12/30/70	GSS	70	CHEV	CHEVR	9311	350	8	0	1	0	4	1	1	1	67	56	30.12	4500	11
320220	100535	01/15/71	GSS	70	CHEV	MALIB	7385	350	8	0	1	0	4	1	1	1	67	57	30.28	4000	9
320303	100517	01/14/71	GSS	70	CHEV	NOVA	9815	350	8	4	0	0	4	1	1	1	67	54	30.26	3500	9
320316	100583	01/21/71	GSS	70	CHEV	IMPAL	8943	350	8	0	1	0	4	1	1	1	68	62	30.04	4500	11
320317	100591	01/20/71	GSS	70	CHEV	IMPAL	8094	350	8	0	1	0	4	1	1	1	68	61	29.92	4500	11
320328	100618	01/26/71	GSS	70	CHEV	CHEVR	7114	350	8	0	1	0	4	1	1	1	68	62	30.20	4500	11
320329	100608	01/23/71	GSS	70	CHEV	CHEVR	8510	350	8	0	1	0	4	1	1	1	69	62	29.98	4500	11
320005	100022	11/18/70	GS7	70	CHEV	IMPAL	7725	350	8	0	1	0	2	1	1	1	76	58	29.88	4500	11
320015	100050	11/24/70	GS7	70	CHEV	CAMAR	6574	350	8	0	1	0	2	1	1	1	62	59	30.07	3500	9
320030	100087	12/01/70	GS7	70	CHEV	CAMAR	9513	350	8	0	1	0	2	1	1	1	71	60	30.25	3500	9
320031	100038	12/01/70	GS7	70	CHEV	MONTE	8133	350	8	0	1	0	2	1	1	1	71	60	30.24	4000	9
320036	100153	12/04/70	GS7	70	CHEV	MONTE	6230	350	8	0	1	0	2	1	1	1	69	57	30.27	4000	9
320046	100129	12/03/70	GS7	70	CHEV	NOVA	6251	350	8	3	0	0	2	1	1	1	71	61	30.34	3500	9
320093	100135	12/08/70	GS7	70	CHEV	CHEVE	9052	350	8	0	0	0	2	1	1	1	70	59	30.08	4000	9
320110	100218	12/10/70	GS7	70	CHEV	MALIB	5748	350	8	0	1	0	2	1	1	1	70	59	30.19	4000	9
320113	100263	12/15/70	GS7	70	CHEV	CHEVE	4631	350	8	0	0	0	2	1	1	1	70	59	30.19	4000	9
320116	100261	12/15/70	GS7	70	CHEV	CHEVE	5322	350	8	0	1	0	2	1	1	1	70	59	30.20	4000	9
320177	100394	12/31/70	GS7	70	CHEV	IMPAL	5267	350	8	0	1	0	2	1	1	1	70	62	30.00	4500	11
320180	100365	12/24/70	GS7	70	CHEV	BELAI	8064	350	8	0	1	0	2	1	1	1	68	58	30.05	4500	11
320194	100378	12/29/70	GS7	70	CHEV	BISCA	3758	350	8	0	0	0	2	1	1	1	66	53	30.06	4500	11
320195	100377	12/29/70	GS7	70	CHEV	BISCA	6133	350	8	0	0	0	2	1	1	1	68	51	30.10	4500	11
320196	100373	12/29/70	GS7	70	CHEV	BISCA	4575	350	8	0	0	0	2	1	1	1	68	53	30.10	4500	11
320197	100372	12/29/70	GS7	70	CHEV	BISCA	4614	350	8	0	1	0	2	1	1	1	63	52	30.10	4500	11
320198	100371	12/29/70	GS7	70	CHEV	BISCA	4110	350	8	0	0	0	2	1	1	1	63	56	30.10	4500	11
320199	100386	12/30/70	GS7	70	CHEV	BISCA	6002	350	8	0	0	0	2	1	1	1	67	57	30.14	4500	11
320200	100389	12/29/70	GS7	70	CHEV	BISCA	4654	350	8	0	0	0	2	1	1	1	68	56	30.13	4500	11
320226	100595	01/21/71	GS7	70	CHEV	CAMAR	5432	350	8	4	0	0	2	1	1	1	68	60	30.05	3500	9
320326	100588	01/21/71	GS7	70	CHEV	IMPAL	3793	350	8	0	1	0	2	1	1	1	68	61	30.05	4500	11
320338	100598	01/22/71	GS7	70	CHEV	IMPAL	8847	350	8	0	1	0	2	1	1	1	68	61	30.00	4500	11
320345	100611	01/23/71	GS7	70	CHEV	IMPAL	4334	350	8	0	1	0	2	1	1	1	68	60	29.95	4500	11
320376	100722	02/05/71	GS7	70	CHEV	IMPAL	13368	350	8	3	1	0	2	1	1	1	71	61	30.10	4500	11
320501	104123	10/29/71	GS7	70	CHEV	MALIB	12762	350	8	0	1	0	2	1	1	1	65	54	30.42	4000	9
320004	100016	11/17/70	GS9	70	CHEV	IMPAL	7750	400	8	0	1	0	2	1	1	1	75	58	30.14	4500	11
320085	100220	12/10/70	GS9	70	CHEV	CHEVR	7476	400	8	0	1	0	2	1	1	1	69	59	30.20	4500	11
320207	100393	12/31/70	GS9	70	CHEV	CHEVR	5382	400	8	0	1	0	2	1	1	1	67	60	30.01	4500	11
320274	101556	03/30/71	GS9	70	CHEV	IMPAL	9012	400	8	0	1	0	2	1	1	1	72	60	29.90	4500	11
320324	100614	01/23/71	GS9	70	CHEV	STAWA	10071	400	8	0	1	0	2	1	1	1	68	61	29.95	4500	11
320441	101124	03/02/71	GS9	70	CHEV	IMPAL	7761	400	8	0	1	0	2	1	1	1	64	46	30.34	4500	11
320443	101555	03/30/71	GS9	70	CHEV	CHEVR	4633	400	8	0	1	0	2	1	1	1	73	61	29.90	4500	11
320089	100287	02/17/71	G60	70	CHEV	ELCAM	8251	402	8	0	1	0	4	1	1	1	68	60	29.85	4000	8
320432	100951	02/13/71	G60	70	CHEV	CHEVE	12047	402	8	4	0	0	4	1	1	1	70	57	30.11	4000	8
320437	101344	03/17/71	G60	70	CHEV	CHEVE	9749	402	8	0	1	0	4	1	1	1	78	62	29.92	4000	8
320010	100038	11/20/70	G64	70	CHEV	IMPAL	8507	454	8	0	1	0	4	1	1	1	68	59	30.11	4500	10
320232	100404	12/31/70	G64	70	CHEV	CORVE	6224	454	8	4	0	0	4	1	1	1	67	62	29.96	4000	8
320028	100070	11/27/70	G61	70	PONT	LEMAN	9293	350	8	0	1	0	2	1	1	1	73	58	29.99	4000	9

LOS ANGELES 1970 VEHICLES COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	RHL	PCV	EXH	EVP	DB	WB	BAROM	INRT	H2
320032	100089	12/01/70	G61	70	PONT	LEMAN	7127	350	8	0	1	0	2	1	1	1	71	60	30.22	4000	9
320170	100360	12/24/70	G61	70	PONT	LEMAN	7308	350	8	0	1	0	2	1	1	1	68	57	30.09	4000	9
320176	100344	12/23/70	G61	70	PONT	LEMAN	7929	350	8	0	1	0	2	1	1	1	68	58	30.13	4000	9
320186	100362	12/24/70	G61	70	PONT	FIREB	9931	350	8	0	1	0	2	1	1	1	69	57	30.08	4000	9
320271	100474	01/03/71	G61	71	PONT	TEMPE	3999	350	8	0	1	0	2	1	1	1	68	58	30.04	4000	9
320318	100593	01/21/71	G61	70	PONT	LEMAN	9144	350	8	0	1	0	2	1	1	1	68	61	30.03	4000	9
320384	100387	02/17/71	G61	70	PONT	CATAL	10820	350	8	0	1	0	2	1	1	1	70	59	29.60	4500	11
320413	101018	02/24/71	G61	70	PONT	TEMPE	12730	350	8	0	1	0	2	1	1	1	73	51	29.94	4000	9
320493	104115	10/27/71	G61	70	PONT	FIREB	22141	350	8	0	1	0	2	1	1	1	63	54	30.20	4000	9
320037	100168	12/05/70	G62	70	PONT	VENTU	7468	400	8	0	1	0	2	1	1	1	68	57	30.22	4500	11
320094	100195	12/09/70	G62	70	PONT	CATAL	7911	400	8	0	1	0	2	1	1	1	70	60	30.11	4500	11
320209	100393	12/31/70	G62	70	PONT	CATAL	6136	400	8	0	1	0	2	1	1	1	68	58	29.97	4500	11
320240	101314	03/16/71	G62	70	PONT	CATAL	7966	400	8	0	1	0	2	1	1	1	70	61	30.15	4500	11
320347	101343	03/17/71	G62	70	PONT	CATAL	7567	400	8	0	1	0	2	1	1	1	68	57	29.92	4500	11
320448	101340	03/17/71	G62	70	PONT	CATAL	10283	400	8	0	1	0	2	1	1	1	74	61	29.95	4500	11
320482	101514	03/26/71	G62	70	PONT	CATAL	14609	400	8	0	1	0	2	1	1	1	69	63	30.03	4500	11
320058	100152	12/04/70	G68	70	PONT	JUDGE	9668	400	8	4	0	0	[illegible]	1	1	1	68	56	30.26	4000	9
320187	100516	01/14/71	G68	70	PONT	GTO	8517	400	8	4	1	0	4	1	1	1	67	59	30.25	4000	9
320205	100394	12/30/70	G68	70	PONT	GTO	5588	400	8	0	1	0	4	1	1	0	68	57	30.13	4000	9
320210	100395	12/31/70	G68	70	PONT	FIREB	6248	400	8	0	1	0	4	1	1	1	71	62	30.00	4000	9
320322	100579	01/20/71	G68	70	PONT	GRAND	4540	400	8	0	1	0	4	1	1	1	68	62	29.92	4500	11
320370	100826	02/13/71	G68	70	PONT	GRAND	12842	400	8	0	1	0	4	1	1	1	71	66	30.02	4500	11
320425	101291	03/11/71	G68	70	PONT	FIREB	10990	400	8	0	1	0	4	1	1	1	70	60	30.05	4000	9
320483	101622	04/03/71	G68	70	PONT	GRAND	14058	400	8	0	1	0	4	1	1	1	71	60	30.00	4500	11
320029	100086	12/01/70	G70	70	PONT	BONNE	7756	455	8	0	1	0	4	1	1	1	70	59	30.25	5000	11
320306	100563	01/19/71	G70	70	PONT	BONNE	5084	455	8	0	1	0	4	1	1	1	72	66	29.87	5000	11
320387	100798	02/11/71	G70	70	PONT	BONNE	10351	455	8	0	1	0	4	1	1	1	72	62	30.11	5000	11
320491	101487	03/25/71	G70	70	PONT	GRAND	10333	455	8	0	1	0	4	1	1	1	70	61	29.95	4500	11
320179	100374	12/28/70	G66	70	OLDS	CUTLA	4377	350	8	0	1	0	2	1	1	1	68	52	30.11	4000	9
320253	100707	02/04/71	G66	70	OLDS	DELTA	4079	350	8	0	1	0	2	1	1	1	70	64	30.16	4500	11
320302	101285	03/11/71	G66	70	OLDS	CUTLA	5471	350	8	0	1	0	2	1	1	1	67	58	30.09	4000	9
320304	101322	03/16/71	G66	70	OLDS	OLDSM	4287	350	8	0	1	0	2	1	1	1	77	55	30.10	4500	11
320342	100597	01/21/71	G66	71	OLDS	CUTLA	8057	350	8	0	1	0	2	1	1	1	72	64	30.02	4000	9
320353	101149	03/03/71	G66	70	OLDS	CUTLA	11547	350	8	0	1	0	2	1	1	1	68	60	30.39	4000	9
320357	100641	01/28/71	G66	70	OLDS	EIGHT	6235	350	8	0	1	0	2	1	1	1	68	59	30.03	4500	11
320020	100055	11/25/70	G67	70	OLDS	DELTA	8651	455	8	0	1	0	4	1	1	1	70	56	30.05	5000	11
320119	100214	12/10/70	G67	70	OLDS	NINET	7531	455	8	0	1	0	4	1	1	1	63	60	30.24	5000	11
320235	100425	01/06/71	G67	70	OLDS	CUTLA	7532	455	8	0	1	0	4	1	1	1	66	54	30.18	5000	11
320327	100636	02/03/71	G67	70	OLDS	TORON	3395	455	8	0	1	0	4	1	1	1	71	62	29.97	5000	11
320335	100619	01/26/71	G67	70	OLDS	CUTLA	3962	455	8	0	1	0	4	1	1	1	68	61	30.18	4500	11
320343	100689	02/03/71	G67	70	OLDS	TORON	3563	455	8	0	1	0	4	1	1	1	70	61	29.97	5000	11
320364	100629	01/27/71	G67	70	OLDS	NINET	12202	455	8	0	1	0	4	1	1	1	70	57	30.07	5000	11
320061	100127	12/03/70	G72	70	OLDS	CUTLA	9128	350	8	0	1	0	4	1	1	1	70	60	30.32	4000	9
320153	100431	01/06/71	G72	70	OLDS	CUTLA	5260	350	8	0	1	0	4	1	1	1	68	55	30.18	4000	9
320352	100625	01/27/71	G72	70	OLDS	CUTLA	13347	350	8	0	1	0	4	1	1	1	73	60	30.08	4000	9
320433	101096	02/27/71	G72	70	OLDS	CUTLA	18482	350	8	4	0	0	4	1	1	1	70	55	30.03	4000	9
320038	100171	12/05/70	G73	70	OLDS	DELTA	7576	455	8	0	1	0	2	1	1	1	68	58	30.25	5000	11
320051	100385	12/30/70	G73	70	OLDS	EIGHT	6675	455	8	0	1	0	2	1	1	1	68	58	30.14	5000	11
320155	100302	12/19/70	G73	70	OLDS	DELTA	5308	455	8	0	1	0	2	1	1	1	68	58	29.92	5000	11
320365	100638	01/28/71	G73	70	OLDS	EIGHT	12338	455	8	0	1	0	2	1	1	1	70	60	30.05	5000	11

LOS ANGELES — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
320002	100018	11/17/70	F45	70	FORD	GALAX	9645	429	8	0	1	0	2	1	1	1	75	54	30.11	4500	11
320009	100034	11/19/70	F45	70	FORD	GALAX	7830	429	8	0	1	0	2	1	1	1	74	66	29.90	4500	11
320016	100051	11/23/70	F45	70	MERC	BROUG	9941	429	8	0	1	0	2	1	1	1	75	65	30.10	4500	11
320049	100149	12/04/70	F45	70	FORD	LTD	7063	429	8	0	1	0	2	1	1	1	68	57	30.28	4500	11
320048	100150	12/04/70	F45	70	FORD	LTD	8037	429	8	0	1	0	2	1	1	1	70	57	30.27	4500	11
320283	100589	01/20/71	F47	70	LINC	CONTI	7408	460	8	0	1	0	4	1	2	1	68	61	29.42	5500	11
320452	101460	03/24/71	F47	70	LINC	CONTI	7814	460	8	0	1	0	4	1	2	1	70	61	30.00	5500	11
320281	100630	01/27/71	G51	70	CHEV	NOVA	7706	230	6	0	0	0	1	1	1	1	70	59	30.06	3500	8
320354	100653	01/30/71	G51	70	CHEV	NOVA	6278	230	6	3	0	0	1	1	1	1	70	61	30.04	3500	8
320356	100659	01/29/71	G51	70	CHEV	NOVA	8490	230	6	3	0	0	1	1	1	1	68	60	30.03	3500	8
320185	100470	01/09/71	G52	70	PONT	FIREB	7851	250	6	0	0	0	1	1	1	1	71	60	30.04	3500	8
320249	100447	01/07/71	G52	70	CHEV	NOVA	9600	250	6	0	0	0	1	1	1	1	71	57	30.23	3500	8
320321	100575	01/20/71	G52	70	OLDS	F-85	5408	250	6	0	0	0	1	1	1	1	68	63	29.90	3500	8
320406	100892	02/17/71	G52	70	CHEV	NOVA	4109	250	6	0	0	0	1	1	1	1	67	57	29.65	3500	8
320421	101410	03/20/71	G52	70	CHEV	LDTRU	13180	250	6	0	0	0	1	1	1	1	73	60	29.89	4000	8
320427	101076	02/26/71	G52	70	CHEV	NOVA	6450	250	6	0	0	0	1	1	1	1	68	58	30.03	3500	8
320428	101147	03/03/71	G52	70	CHEV	NOVA	4077	250	6	0	0	0	1	1	1	1	68	54	30.17	3500	8
320427	101171	03/04/71	G52	70	CHEV	NOVA	7556	250	6	0	0	0	1	1	1	1	70	56	29.98	3500	8
320480	101455	03/24/71	G52	70	CHEV	CAMAR	7624	250	6	3	0	0	1	1	1	1	70	60	29.97	3500	8
320484	101633	04/08/71	G52	70	CHEV	NOVA	11521	250	6	0	0	0	1	1	1	1	71	60	30.06	3500	8
320487	101860	04/21/71	G52	70	CHEV	CHEVT	11953	250	6	3	0	0	1	1	1	1	68	56	29.75	4000	8
320488	101859	04/21/71	G52	70	CHEV	CHEVT	7011	250	6	3	0	0	1	1	1	1	69	57	29.77	4000	8
320489	101877	04/22/71	G52	70	CHEV	CHEVV	11219	250	6	3	0	0	1	1	1	1	70	56	29.87	3500	8
320043	100196	12/09/70	G53	70	CHEV	CAMAR	8428	307	8	0	1	0	2	1	1	1	70	60	30.08	3500	8
320150	100277	12/16/70	G53	70	CHEV	CHEVE	9542	307	8	0	1	0	2	1	1	1	68	59	30.05	3500	8
320156	100336	12/22/70	G53	70	CHEV	NOVA	4695	307	8	0	1	0	2	1	1	1	69	53	29.95	3500	8
320182	100368	12/24/70	G53	70	CHEV	NOVA	7661	307	8	0	0	0	2	1	1	1	68	58	30.04	3500	8
320188	100370	12/29/70	G53	70	CHEV	LDTRU	4476	307	8	0	0	0	2	1	1	1	64	58	30.10	4000	8
320193	100391	12/30/70	G53	70	CHEV	LDTRU	10320	307	8	0	0	0	2	1	1	1	68	52	30.18	4000	8
320231	101220	03/04/71	G53	70	CHEV	LDTRU	7974	307	8	3	0	0	2	1	1	1	73	62	30.14	4000	8
320286	100493	01/12/71	G53	70	CHEV	CAMAR	7467	307	8	0	0	0	2	1	1	1	71	62	30.00	3500	8
320288	100496	01/12/71	G53	70	CHEV	CHEVE	7408	307	8	0	1	0	2	1	1	1	72	63	30.02	3500	8
320289	100520	01/14/71	G53	70	CHEV	CHEVE	7464	307	8	0	1	0	2	1	1	1	67	58	30.39	3500	8
320291	100549	01/16/71	G53	70	CHEV	MALIB	6991	307	8	0	1	0	2	1	1	1	66	59	30.22	3500	8
320297	100534	01/15/71	G53	70	CHEV	NOVA	4568	307	8	0	1	0	2	1	1	1	68	57	30.30	3500	8
320330	100626	01/27/71	G53	70	CHEV	CHEVE	8598	307	8	0	0	0	2	1	1	1	73	60	30.08	3500	8
320374	100721	02/05/71	G53	70	CHEV	ELCAM	5935	307	8	0	0	0	2	1	1	1	71	62	30.09	3500	8
320402	100824	02/13/71	G53	70	CHEV	LDTRU	7321	307	8	4	0	0	2	1	1	0	70	65	30.01	4000	8
320449	101623	04/03/71	G53	70	CHEV	LDTRU	13404	307	8	4	0	0	2	1	2	1	70	60	30.00	4000	8
320450	101436	03/23/71	G53	70	CHEV	CAMAR	7226	307	8	3	0	0	2	1	1	1	69	59	30.09	3500	8
320455	101513	03/26/71	G53	70	CHEV	NOVA	3323	307	8	3	0	0	2	1	1	1	69	63	30.01	3500	8
320456	101591	04/01/71	G53	70	CHEV	LDTRU	4073	307	8	3	0	0	2	1	2	0	70	61	30.04	4000	8
320476	104116	10/28/71	G53	70	CHEV	CHEVE	10814	307	8	0	1	0	2	1	1	1	69	51	29.92	3500	8
320478	104118	10/29/71	G53	70	CHEV	NOVA	7685	307	8	0	0	0	2	1	1	1	65	49	30.20	3500	8
320479	104124	10/30/71	G53	70	CHEV	CHEVE	12650	307	8	0	0	0	2	1	1	1	65	54	30.42	3500	8
320500	104126	10/30/71	G53	70	CHEV	CHEVE	22499	307	8	0	0	0	2	1	1	1	68	56	30.43	3500	8
320021	100057	11/25/70	G55	70	CHEV	CHEVR	8879	350	8	0	1	0	4	1	1	1	70	60	30.10	4500	11
320033	100090	12/01/70	G55	70	CHEV	IMPAL	7765	350	8	0	1	0	4	1	1	1	70	60	30.22	4500	11
320041	100231	12/11/70	G55	70	CHEV	MONTE	4358	350	8	0	1	0	4	1	1	1	68	55	30.16	4000	9
320050	100124	12/03/70	G55	70	CHEV	IMPAL	5659	350	8	0	1	0	4	1	1	1	68	57	30.34	4500	11

LOS ANGELES — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
320284	100505	01/13/71	F33	70	MERC	MONTG	6791	302	8	0	1	0	2	1	1	1	70	61	30.11	3500	8
320371	100103	12/05/70	F33	70	MERC	MONTG	12003	302	8	0	1	0	2	1	1	1	70	62	30.17	3500	8
320379	100793	02/11/71	F33	70	FORD	GALAX	4783	302	8	0	0	0	2	1	1	1	72	62	30.10	4000	8
320396	100792	02/11/71	F33	70	FORD	ECONO	5639	302	8	3	0	0	2	1	1	1	71	62	30.10	4000	8
320397	100797	02/11/71	F33	70	FORD	FAIRL	10183	302	8	0	1	0	2	1	1	1	72	62	30.11	3500	8
320057	100379	12/29/70	F34	70	MERC	COUGA	5874	351	8	0	1	0	2	1	1	1	67	54	30.04	3500	9
320069	100196	12/06/70	F34	70	FORD	RANCH	4653	351	8	0	0	0	2	1	1	1	70	60	30.10	4000	9
320072	100128	12/03/70	F34	70	FORD	GALAX	6065	351	8	0	1	0	2	1	1	1	70	60	30.34	4000	9
320073	100126	12/03/70	F34	70	FORD	GALAX	6679	351	8	0	1	0	2	1	1	1	71	60	30.33	4000	9
320080	100170	12/05/70	F34	70	FORD	TORIN	9506	351	8	0	1	0	2	1	1	1	69	57	30.24	4000	9
320090	100221	12/10/70	F34	70	FORD	CUSTO	9737	351	8	0	1	0	2	1	1	1	70	59	30.20	4000	9
320123	100228	12/11/70	F34	70	FORD	GALAX	6850	351	8	0	1	0	2	1	1	1	70	55	30.20	4000	9
320174	100343	12/23/70	F34	70	FORD	TORIN	9169	351	8	0	1	0	2	1	1	1	69	50	30.12	4000	9
320213	100398	12/31/70	F34	70	FORD	LTD	9963	351	8	0	1	0	2	1	1	1	68	59	30.00	4000	9
320228	100547	01/16/71	F34	70	FORD	CUSTO	7038	351	8	0	1	0	2	1	1	1	68	61	30.24	4000	9
320236	100426	01/06/71	F34	70	FORD	FALCO	7734	351	8	0	1	0	2	1	1	1	66	54	30.18	4000	9
320256	101197	03/05/71	F34	70	FORD	LTD	4624	351	8	0	1	0	2	1	1	1	70	57	29.95	4000	9
320273	100489	01/12/71	F34	70	MERC	COUGA	6086	351	8	0	1	0	2	1	1	1	67	63	29.39	3500	9
320295	100591	01/21/71	F34	70	MERC	MONTG	4180	351	8	0	1	0	2	1	1	1	68	61	30.03	4000	9
320301	100864	02/16/71	F34	70	FORD	TORIN	4382	351	8	0	1	0	2	1	1	1	74	60	29.88	4000	9
320337	100605	01/22/71	F34	70	FORD	LTD	6250	351	8	0	1	0	2	1	1	1	69	60	30.03	4000	9
320405	100890	02/17/71	F34	70	FORD	TORIN	9795	351	8	0	1	0	2	1	1	1	70	58	29.61	4000	9
320431	100944	02/13/71	F34	70	FORD	MUSTA	5834	351	8	0	1	0	2	1	1	1	73	59	30.13	3500	9
320008	100033	11/19/70	F35	70	FORD	LTD	7581	390	8	0	1	0	2	1	1	1	74	66	29.99	4500	11
320011	100042	11/20/70	F35	70	FORD	GALAX	7657	390	8	0	1	0	2	1	1	1	76	62	30.12	4500	11
320013	100054	11/24/70	F35	70	FORD	GALAX	9435	390	8	0	1	0	2	1	1	1	70	64	30.00	4500	11
320104	100259	12/15/70	F35	70	FORD	LTD	5607	390	8	0	1	0	2	1	1	1	70	59	30.20	4500	11
320126	100247	12/12/70	F35	70	FORD	GALAX	7611	390	8	0	1	0	2	1	1	1	69	53	29.98	4500	11
320143	100332	12/22/70	F35	70	FORD	LTD	9438	390	8	0	1	0	2	1	1	1	68	54	29.90	4500	11
320154	100320	12/19/70	F35	70	FORD	RANCH	8178	390	8	0	1	0	2	1	1	1	70	60	29.75	4500	11
320173	100317	12/19/70	F35	70	FORD	LTD	7042	390	8	0	1	0	2	1	1	1	70	55	29.74	4500	11
320203	100383	12/30/70	F35	70	FORD	GALAX	7638	390	8	0	1	0	2	1	1	1	68	53	30.11	4500	11
320237	100412	01/05/71	F35	70	FORD	LTD	7490	390	8	0	1	0	2	1	1	1	68	57	30.21	4500	11
320204	100461	01/08/71	F36	70	FORD	THUND	7078	429	8	0	1	0	4	1	1	1	70	59	30.22	5000	11
320241	100410	01/05/71	F36	70	FORD	THUND	5237	429	8	0	1	0	4	1	1	1	67	57	30.21	5000	11
320248	100427	01/06/71	F36	70	FORD	LTD	8524	429	8	0	1	0	4	1	1	1	69	55	30.13	4500	11
320269	100400	12/31/70	F37	70	FORD	ECONO	7153	240	6	3	0	0	1	1	1	1	68	53	29.97	4000	8
320426	100995	02/23/71	F37	70	FORD	ECONO	8760	240	6	0	0	0	1	1	1	0	71	60	29.75	4000	8
320435	101063	02/26/71	F37	70	FORD	F-100	9289	240	6	4	0	0	1	1	1	1	69	59	30.00	4000	8
320035	100105	12/02/70	F38	70	FORD	MAVER	4970	250	6	0	1	0	1	1	1	1	70	60	30.19	3000	8
320047	100337	12/22/70	F38	70	FORD	MAVER	7113	250	6	3	0	0	1	1	1	1	68	53	29.96	3000	8
320079	100411	01/05/71	F38	70	FORD	MAVER	8622	250	6	0	0	0	1	1	1	1	68	58	30.22	3000	8
320357	100631	01/27/71	F38	70	FORD	MAVER	6951	250	6	0	0	0	1	1	1	1	70	62	30.09	3000	8
320013	100047	11/23/70	F40	70	FORD	TORIN	9480	351	8	0	1	0	4	1	1	1	68	58	30.23	4000	9
320315	100564	01/19/71	F40	70	FORD	TORIN	5001	351	8	0	1	0	4	1	1	1	73	67	29.86	4000	9
320420	101177	03/04/71	F40	70	FORD	MUSTA	11611	351	8	4	0	0	4	1	2	1	72	57	29.90	3500	9
320255	100477	01/09/71	F41	70	FORD	F-100	4112	360	8	0	1	0	2	1	1	1	70	59	30.01	4000	8
320411	101438	03/23/71	F41	70	FORD	F-100	10243	360	8	0	1	0	2	1	1	1	70	60	30.07	4000	8
320430	100991	02/23/71	F41	70	FORD	F-100	9332	360	8	3	0	0	2	1	1	0	71	60	29.75	4000	9
320446	101323	03/16/71	F44	70	FORD	MUSTA	12243	428	8	4	0	0	4	1	2	1	75	57	30.09	4000	8

LOS ANGELES 1970 VEHICLES COLD START VEHICLE INFORMATIO

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BRL	PCV	EXH	EVP	DB	WB	BAROM	INRT	MP
320076	100219	12/10/70	A	1	70	AMER	HORNE	9308	232	6	0	0	0	1	1	1	1	69	60	30.18	3000	8
320114	100274	12/16/70	A	1	70	AMER	GREML	5159	232	6	0	0	0	1	1	1	1	68	59	30.06	3000	8
320145	100304	12/19/70	A	1	70	AMER	HORNE	6556	232	6	0	0	0	1	1	1	1	67	58	29.92	3000	8
320166	100364	12/24/70	A	1	70	AMER	GREML	4915	232	6	3	0	0	1	1	1	1	69	58	30.03	3000	8
320252	100475	01/09/71	A	1	70	AMER	HORNE	4213	232	6	0	0	0	1	1	1	1	71	60	30.03	3000	8
320297	100912	02/18/71	A	1	70	AMER	HORNE	8137	232	6	0	1	0	1	1	1	1	74	60	29.65	3000	8
320309	101408	03/20/71	A	1	70	AMER	HORNE	4937	232	6	3	0	0	1	1	1	1	75	53	30.01	3000	8
320382	100796	02/11/71	A	1	70	AMER	HORNE	10674	232	6	3	0	0	1	1	1	1	71	62	30.10	3000	8
320490	102239	05/15/71	A	1	70	AMER	GREML	14150	232	6	3	0	0	1	1	1	1	68	62	29.83	3000	8
320103	100275	12/16/70	A	2	70	AMER	GREML	6457	199	6	0	0	0	1	1	1	1	70	58	30.06	3000	8
320310	100548	01/16/71	A	2	70	AMER	GREML	5337	199	6	3	0	0	1	1	1	1	67	60	30.22	3000	8
320312	101435	03/23/71	A	3	70	AMER	HORNE	4047	232	6	0	1	0	2	1	1	1	70	58	30.10	3000	8
320392	101287	03/11/71	A	3	70	AMER	REBEL	5391	232	6	0	0	0	2	1	1	1	63	59	30.10	3500	8
320147	100376	12/29/70	A	5	70	AMER	REBEL	7557	304	8	0	1	0	2	1	1	1	68	59	30.10	4000	8
320158	101358	03/18/71	A	5	70	AMER	HORNE	6741	304	8	0	1	0	2	1	1	1	74	60	30.00	3000	8
320369	100646	01/29/71	A	5	70	AMER	AMBAS	10231	304	8	0	1	0	2	1	1	1	70	61	29.99	4000	8
320491	102387	05/27/71	A	7	70	AMER	JAVEL	14255	360	8	0	1	0	2	1	1	1	74	62	29.86	3500	9
320350	100623	01/26/71	A	9	70	AMER	AMBAS	6516	360	8	0	1	0	4	1	1	0	71	60	30.17	4000	9
320362	100642	01/23/71	A10		70	AMER	AMX	6313	390	8	0	1	0	4	1	1	1	71	62	29.93	3500	9
320208	100396	12/31/70	C10		70	DODG	DART	7375	198	6	3	0	0	1	1	1	1	68	59	30.09	3000	8
320358	100647	01/29/71	C10		70	PLYM	DUSTE	10038	198	6	3	0	0	1	1	1	1	69	60	29.99	3000	8
320003	100019	11/17/70	C11		70	DODG	DART	5624	225	6	0	1	0	1	1	1	1	75	54	30.11	3500	8
320006	100024	11/19/70	C11		70	DODG	DART	4844	225	6	0	1	0	1	1	1	1	68	58	30.02	3500	8
320012	100043	11/20/70	C11		70	DODG	DART	8343	225	6	0	1	0	1	1	1	1	70	60	30.03	3500	8
320053	100151	12/04/70	C11		70	DODG	DART	6779	225	6	0	0	0	1	1	1	1	70	57	30.26	3500	8
320060	100125	12/03/70	C11		70	DODG	D-100	5336	225	6	4	0	0	1	1	1	1	71	60	30.31	4000	8
320112	100246	12/12/70	C11		70	DODG	DART	4429	225	6	0	1	0	1	1	1	1	70	53	29.99	3500	8
320243	100418	01/05/71	C11		70	PLYM	VALIA	4623	225	6	0	1	0	1	1	1	1	67	57	30.18	3500	8
320247	100429	01/06/71	C11		70	PLYM	VALIA	6069	225	6	0	0	0	1	1	1	1	67	55	30.20	3500	8
320270	100486	01/12/71	C11		70	DODG	DART	7746	225	6	0	0	0	1	1	1	1	68	64	30.05	3500	8
320333	100582	01/20/71	C11		70	DODG	DART	4603	225	6	0	1	0	1	1	1	1	58	60	29.94	3500	8
320334	100583	01/20/71	C11		70	DODG	DART	4066	225	6	0	1	0	1	1	1	1	68	60	29.96	3500	8
320434	101121	03/02/71	C11		70	DODG	D-100	9254	225	6	4	0	0	1	1	1	1	66	46	30.34	4000	8
320439	101142	03/03/71	C11		70	DODG	D-100	8117	225	6	4	0	0	1	1	1	1	70	54	30.37	4000	8
320092	100167	12/05/70	C12		70	DODG	DART	3858	318	8	0	1	0	2	1	1	1	68	57	30.22	3500	9
320121	100801	02/11/71	C12		70	PLYM	BARRA	7418	318	8	0	0	0	2	1	1	1	71	61	30.12	3500	9
320135	100276	12/16/70	C12		70	PLYM	BELVE	6105	318	8	0	0	0	2	1	1	1	68	59	30.05	3500	9
320136	100285	12/17/70	C12		70	PLYM	BELVE	5947	318	8	0	0	0	2	1	1	1	69	60	29.86	3500	9
320137	100303	12/18/70	C12		70	PLYM	BELVE	7061	318	8	0	0	0	2	1	1	1	68	59	29.93	3500	9
320138	100319	12/19/70	C12		70	PLYM	BELVE	6618	318	8	0	0	0	2	1	1	1	70	56	29.75	3500	9
320139	100338	12/22/70	C12		70	PLYM	BELVE	6092	318	8	0	0	0	2	1	1	1	68	53	29.96	3500	9
320140	100345	12/23/70	C12		70	PLYM	BELVE	6200	318	8	0	0	0	2	1	1	1	68	57	30.13	3500	9
320141	100363	12/24/70	C12		70	PLYM	BELVE	6221	318	8	0	0	0	2	1	1	1	69	58	30.05	3500	9
320142	100380	12/27/70	C12		70	PLYM	BELVE	6052	318	8	0	0	0	2	1	1	1	67	55	30.04	3500	9
320211	101365	03/19/71	C12		70	PLYM	DUSTE	4474	318	9	0	1	0	2	1	1	1	71	62	30.00	3500	9
320246	100414	01/05/71	C12		70	PLYM	FURY2	7628	318	9	0	1	0	2	1	1	1	66	55	30.20	4500	9
320261	100763	02/09/71	C12		70	DODG	CORON	11060	318	8	0	1	0	2	1	1	1	71	53	30.12	3500	9
320285	101265	03/10/71	C12		70	DODG	CHALL	9698	318	8	0	1	0	2	1	1	1	70	64	30.09	3500	9
320340	101238	03/09/71	C12		70	PLYM	FURY	5935	318	8	0	1	0	2	1	1	1	74	62	30.09	4500	9
320395	100795	02/11/71	C12		70	PLYM	SATEL	4102	318	8	0	1	0	2	1	1	1	71	61	30.10	3500	9

LOS ANGELES — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	PUV NO	--DATE--	REG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	TP	WB	BAROM	INRT	HP
320419	101364	03/16/71	C12	70	PLYM	DUSTR	8236	318	8	0	0	0	2	1	1	1	70	62	30.00	3500	9
320485	101724	04/14/71	C12	70	DODG	D-100	5547	318	8	4	0	0	2	1	1	0	72	60	29.85	4000	9
320497	105119	10/29/71	C12	70	PLYM	'CUDA	20408	318	8	3	0	0	2	1	1	1	65	49	30.20	3500	9
320503	104127	11/01/71	C12	70	DODG	CORON	27440	318	8	0	1	0	2	1	1	1	69	58	30.32	3500	9
320504	104129	11/02/71	C12	70	DODG	CORON	28111	318	8	0	1	0	2	1	1	1	73	58	30.30	3500	9
320122	100243	12/12/70	C13	70	CHRY	NEWPO	4500	383	8	0	1	0	2	1	1	0	69	54	30.00	4500	11
320148	100262	12/15/70	C13	70	CHRY	CHRYS	9408	383	8	0	1	0	2	1	1	1	69	60	30.20	4500	11
320227	100401	12/31/70	C13	70	CHRY	CHRYS	8708	383	8	0	1	0	2	1	1	1	67	59	29.98	4500	11
320242	100417	01/05/71	C13	70	PLYM	FURY	6226	383	8	0	1	0	2	1	1	1	67	57	30.21	4500	11
320292	101338	03/17/71	C13	70	DODG	CORON	4315	383	8	0	1	0	2	1	1	1	77	62	29.95	4000	9
320381	100823	02/13/71	C13	70	DODG	CORON	14203	383	8	0	1	0	2	1	1	1	70	65	30.00	4000	9
320385	100915	02/18/71	C13	70	CHRY	NEWPO	8133	383	8	0	1	0	2	1	1	1	75	60	29.98	4500	11
320399	101363	03/16/71	C13	70	PLYM	FURY	12015	383	8	0	1	0	2	1	1	1	73	62	30.00	4500	11
320404	101345	03/17/71	C13	70	PLYM	FURY	4226	383	8	0	1	0	2	1	1	1	81	62	29.92	4500	11
320407	101464	03/24/71	C13	70	PLYM	FURY	6103	383	8	0	1	0	2	1	1	1	72	60	29.97	4500	11
320024	100059	11/25/70	C14	70	CHRY	CHRYS	6830	440	8	0	1	0	4	1	1	1	74	64	30.00	5000	11
320040	100130	12/03/70	C14	70	CHRY	NEWPO	8908	440	8	0	1	0	4	1	1	1	71	61	30.35	5000	11
320368	100667	02/02/71	C14	70	CHRY	IMPER	13270	440	8	0	1	0	4	1	1	1	68	60	29.96	5000	11
320383	100865	02/16/71	C15	70	PLYM	DUSTR	11854	340	8	0	0	0	4	1	1	1	74	60	29.89	3500	8
320201	100387	12/30/70	C17	70	CHRY	NEWPO	8502	383	8	0	1	0	4	1	1	1	66	54	30.13	4500	11
320245	100416	01/05/71	C17	70	PLYM	FURY	9432	383	8	0	1	0	4	1	1	1	67	56	30.21	4500	11
320048	100640	01/29/71	C18	70	PLYM	CUDA	19821	383	8	0	1	0	4	1	1	1	68	59	30.06	4000	9
320244	100415	01/05/71	C18	70	PLYM	ROADR	10012	383	8	4	0	0	4	1	1	1	67	56	30.18	4000	9
320018	100053	11/24/70	C19	70	PLYM	FURY	9257	440	8	0	1	0	4	1	1	1	74	62	30.06	4500	11
320436	101174	03/04/71	C19	70	DODG	CHALL	8111	440	8	0	0	0	4	1	1	1	69	56	29.98	4000	9
320447	101138	03/05/71	C19	70	DODG	CHARG	5632	440	8	0	1	0	4	1	1	1	71	57	29.95	4000	9
320062	100347	12/23/70	F30	70	FORD	MAVER	5767	170	6	3	0	0	1	1	1	1	69	59	30.12	2750	4
320343	100617	01/26/71	F30	70	FORD	MAVER	9524	170	6	3	0	0	1	1	1	1	69	61	30.20	2750	4
320377	100950	02/19/71	F30	70	FORD	MAVER	5198	170	6	0	0	0	1	1	1	1	67	55	30.11	2750	4
320336	100400	02/11/71	F30	70	FORD	MAVER	9773	170	6	3	1	0	1	1	1	1	72	61	30.12	2750	4
320388	100825	02/13/71	F30	70	FORD	MAVER	13589	170	6	3	0	0	1	1	1	1	71	65	30.00	2750	4
320378	100765	02/03/71	F31	70	FORD	FALCO	7220	200	6	0	0	0	1	1	1	1	71	57	30.15	3000	8
320026	100068	11/27/70	F32	70	FORD	MAVER	4962	200	6	0	0	0	1	1	1	1	74	62	29.99	2750	4
320096	100169	12/05/70	F32	70	FORD	MAVER	9260	200	6	3	0	0	1	1	1	1	68	54	30.22	2750	4
320115	100216	12/10/70	F32	70	FORD	MAVER	4385	200	6	0	1	0	1	1	1	1	70	61	30.22	2750	4
320225	100430	01/06/71	F32	70	FORD	MAVER	8914	200	6	0	0	0	1	1	1	1	70	56	30.18	2750	4
320229	100442	01/07/71	F32	70	FORD	MAVER	8825	200	6	0	1	0	1	1	1	1	71	57	30.23	2750	4
320269	100602	01/22/71	F32	70	FORD	MAVER	9477	200	6	3	0	0	1	1	1	1	70	61	29.98	2750	4
320325	100616	01/26/71	F32	70	FORD	MAVER	7330	200	6	3	0	0	1	1	1	1	68	61	30.20	2750	4
320394	101070	02/26/71	F32	70	FORD	MAVER	11106	200	6	0	0	0	1	1	1	1	70	59	30.00	2750	4
320027	100647	02/03/71	F33	70	FORD	TORIN	10325	302	8	0	1	0	2	1	1	1	71	61	29.97	3500	8
320044	100111	12/02/70	F33	70	FORD	MUSTA	7331	302	8	0	0	0	2	1	1	1	71	61	30.20	3500	8
320082	100346	12/23/70	F33	70	FORD	TORIN	8597	302	8	0	1	0	2	1	1	1	61	59	30.12	3500	8
320125	100242	12/12/70	F33	70	FORD	ECONO	7785	302	8	0	1	0	2	1	1	1	70	55	30.00	4000	8
320143	100278	12/16/70	F33	70	FORD	FAIRL	8361	302	8	0	1	0	2	1	1	1	68	60	30.04	3500	8
320159	100290	12/17/70	F33	70	FORD	MUSTA	4472	302	8	0	1	0	2	1	1	1	68	60	29.80	3500	8
320160	100283	12/17/70	F33	70	FORD	RANCH	9133	302	8	0	1	0	2	1	1	1	68	60	29.80	3500	8
320167	100361	12/24/70	F33	70	FORD	ECONO	7867	302	8	3	0	0	2	1	1	1	68	57	30.11	4000	8
320214	100546	01/16/71	F33	70	FORD	ECONO	5417	302	8	0	1	0	2	1	1	1	69	61	30.25	4000	8
320275	100469	01/03/71	F33	70	FORD	FAIRL	4375	302	8	0	0	0	2	1	1	1	67	59	30.03	3500	8

LOS ANGELES — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG YR	MAKE	MODEL	DDOMR	CID	CYL	TRN	A/C	FSJ	BBL	PCV	EXH	EVP	DB	WP	BAROM	IDRT	HP
320277	100464	01/09/71	V33	70	VOLK	BEETL	9837	97	4	0	0	0	1	1	1	1	70	58	30.18	2250	6
320063	100165	12/05/70	V84	70	VOLK	PORSC	6004	103	4	5	0	1	0	1	1	1	70	55	30.24	2250	4

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Detroit

1971 VEHICLES

DETROIT CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BRL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DB	WB	BAROM	INRT	HP
420273	000277	02/18/71	F40	70	FORD	TORIN	12068	351	8	0	1	0	4	1	1	0	70	60	30.42	4000	9
420298	000317	02/24/71	F40	70	MERC	CYCLO	13852	351	8	0	1	0	4	1	1	0	71	60	30.12	4000	9
420594	000855	08/24/71	F41	70	FORD	LDTRU	28852	360	8	0	1	0	2	1	1	0	73	62	30.17	4000	8
420607	000867	09/07/71	F41	70	FORD	LDTRU	20641	360	8	3	0	0	2	1	1	0	78	73	30.03	4000	8
420605	000667	09/04/71	F44	70	FORD	MUSTA	12006	428	8	4	0	0	4	1	2	0	78	74	29.32	4000	8
420169	000169	01/28/71	F45	70	MERC	MARQU	12669	429	8	0	1	0	2	1	1	0	67	57	30.12	4500	11
420247	000247	02/12/71	F45	70	MERC	MARQU	4103	429	8	0	1	0	2	1	1	0	70	64	30.14	4500	11
420289	000303	02/23/71	F45	70	MERC	MARQU	11417	429	8	0	1	0	2	1	1	0	71	60	29.71	4500	11
420208	000208	02/05/71	F46	70	FORD	TORIN	6214	429	8	4	0	0	4	1	2	0	75	65	29.50	4000	9
420322	000346	03/02/71	F47	70	LINC	CONTI	14822	460	8	0	1	0	4	1	2	0	60	55	30.40	5500	11
420384	000481	03/29/71	F47	70	LINC	CONTI	12513	460	8	0	1	0	4	1	2	0	68	58	30.01	5500	11
420250	000250	02/15/71	G51	70	CHEV	NOVA	9292	230	6	0	0	0	1	1	1	0	78	68	30.14	3500	8
420416	000515	04/02/71	G51	70	CHEV	NOVA	8207	230	6	0	0	0	1	1	1	0	68	59	30.12	3500	8
420418	000517	04/02/71	G51	70	CHEV	NOVA	8052	230	6	0	0	0	1	1	1	0	70	61	30.12	3500	8
420446	000567	04/12/71	G51	70	CHEV	NOVA	6433	230	6	0	0	0	1	1	1	0	70	65	30.32	3500	8
420454	000599	04/15/71	G51	70	CHEV	NOVA	14266	230	6	3	0	0	1	1	1	0	68	61	30.50	3500	8
420585	000844	08/20/71	G51	70	CHEV	NOVA	19760	230	6	0	0	0	1	1	1	0	79	70	29.91	3500	8
420595	000856	08/28/71	G51	70	CHEV	NOVA	43972	230	6	0	0	0	1	1	1	0	79	68	29.94	3500	8
420597	000858	08/28/71	G51	70	CHEV	NOVA	30906	230	6	3	0	0	1	1	1	0	79	69	30.01	3500	8
420598	000859	08/28/71	G51	70	CHEV	NOVA	17186	230	6	0	0	0	1	1	1	0	80	69	29.96	3500	8
420600	000861	09/01/71	G51	70	CHEV	NOVA	19975	230	6	0	0	0	1	1	1	0	72	66	30.21	3500	8
420603	000865	08/31/71	G51	70	CHEV	NOVA	20059	230	6	0	0	0	1	1	1	0	79	68	30.25	3500	8
420637	000971	10/28/71	G51	70	CHEV	NOVA	27502	230	6	0	0	0	1	1	1	0	72	65	30.31	3500	8
420129	000128	01/20/71	G52	70	CHEV	CAMAR	9514	250	6	3	0	0	1	1	1	0	70	60	30.42	3500	8
420468	000616	04/19/71	G52	70	CHEV	CHEVR	4081	250	6	0	0	0	1	1	1	0	71	61	30.54	4000	8
420531	000704	05/04/71	G52	70	PONT	TEMPE	11685	250	6	0	0	0	1	1	1	0	69	59	30.50	3500	8
420583	000842	08/14/71	G52	70	CHEV	LDTRU	9690	250	6	3	0	0	1	1	1	0	83	71	30.08	4000	8
420584	000843	08/13/71	G52	70	CHEV	NOVA	30946	250	6	0	0	0	1	1	1	0	79	68	30.04	3500	8
420599	000860	09/01/71	G52	70	CHEV	CHEVE	18177	250	6	3	0	0	1	1	1	0	70	64	30.21	3500	8
420601	000862	09/01/71	G52	70	CHEV	NOVA	12661	250	6	0	0	0	1	1	1	0	72	65	30.21	3500	8
420614	000890	09/24/71	G52	70	CHEV	BISCA	20835	250	6	0	0	0	1	1	1	0	78	63	30.60	4000	8
420633	000920	10/06/71	G52	70	CHEV	CHEVT	25112	250	6	3	0	0	1	1	1	0	73	65	29.70	4000	8
420008	000045	01/04/71	G53	70	CHEV	CAMAR	8083	307	8	0	0	0	2	1	1	0	68	60	29.70	3500	8
420010	000467	03/24/71	G53	70	CHEV	MALIB	9609	307	8	3	0	0	2	1	1	0	74	62	30.44	3500	8
420042	000037	12/29/70	G53	70	CHEV	CAMAR	9332	307	8	0	0	0	2	1	1	0	69	55	30.32	3500	9
420046	000043	01/31/71	G53	70	CHEV	MALIB	6820	307	8	0	0	0	2	1	1	0	70	58	30.31	3500	8
420150	000150	01/25/71	G53	70	CHEV	NOVA	7661	307	8	0	0	0	2	1	1	0	74	66	30.01	3500	8
420181	000181	01/29/71	G53	70	CHEV	NOVA	14035	307	8	0	0	0	2	1	1	0	69	68	29.81	3500	8
420263	000263	02/16/71	G53	70	CHEV	MALIB	11813	307	8	0	1	0	2	1	1	0	72	61	30.43	3500	8
420307	000326	02/25/71	G53	70	CHEV	CAMAR	15165	307	8	0	1	0	2	1	1	0	68	57	30.18	3500	8
420319	000343	03/01/71	G53	70	CHEV	CAMAR	11285	307	8	0	1	0	2	1	1	0	68	55	30.33	3500	8
420320	000344	03/01/71	G53	70	CHEV	MALIB	14109	307	8	0	1	0	2	1	1	0	68	55	30.41	3500	8
420365	000431	03/17/71	G53	70	CHEV	NOVA	10245	307	8	0	0	0	2	1	1	0	72	63	30.41	3500	8
420401	000500	04/01/71	G53	70	CHEV	MALIB	13619	307	8	0	0	0	2	1	1	0	71	62	30.04	3500	8
420405	000504	04/01/71	G53	70	CHEV	MALIB	11843	307	8	0	0	0	2	1	1	0	69	57	30.02	3500	8
420407	000506	04/01/71	G53	70	CHEV	MALIB	12620	307	8	0	0	0	2	1	1	0	68	58	30.01	3500	8
420417	000516	04/02/71	G53	70	CHEV	NOVA	14364	307	8	3	0	0	2	1	1	0	68	58	30.12	3500	8
420512	000670	04/28/71	G53	70	CHEV	NOVA	12655	307	8	3	0	0	2	1	1	0	70	60	29.72	3500	8
420547	000752	05/12/71	G53	70	CHEV	NOVA	14337	307	8	3	0	0	2	1	1	0	70	61	30.51	3500	8
420561	000778	05/14/71	G53	70	CHEV	CAMAR	10525	307	8	3	0	0	2	1	1	0	69	59	30.71	3500	8

DETROIT

1370 VEHICLES

COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DR	WB	BAROM	INRT	HP
420124	000125	01/20/71	F33	70	FORD	FAIRL	6338	302	8	0	0	C	2	1	1	0	72	62	30.50	3500	8
420137	000136	01/21/71	F33	70	FORD	FAIRL	8670	302	8	0	0	0	2	1	1	0	73	65	29.92	3500	8
420139	000139	01/22/71	F33	70	FORD	FAIRL	7820	302	8	0	0	0	2	1	1	0	70	60	30.20	3500	8
420140	000140	01/22/71	F33	70	FORD	FAIRL	4449	302	8	0	0	0	2	1	1	0	75	67	30.22	3500	8
420192	000192	02/03/71	F33	70	FORD	GALAX	7260	302	8	0	0	0	2	1	1	0	70	60	30.80	4000	9
420206	000206	02/04/71	F33	70	FORD	F-100	5878	302	8	0	0	0	2	1	1	0	74	67	30.20	4000	8
420324	000348	03/02/71	F33	70	FORD	MUSTA	14825	302	8	0	0	0	2	1	1	0	70	60	30.41	3500	8
420486	000634	04/21/71	F33	70	FORD	MUSTA	10158	302	8	3	0	0	2	1	1	0	71	61	30.00	3500	8
420014	000018	12/22/70	F34	70	FORD	GALAX	7230	351	8	0	1	0	2	1	1	0	73	59	30.04	4000	9
420016	000015	12/21/70	F34	70	FORD	GALAX	9631	351	8	0	1	0	2	1	1	0	71	59	30.42	4000	9
420017	000016	12/21/70	F34	70	FORD	GALAX	3245	351	8	0	1	0	2	1	1	0	73	60	30.40	4000	9
420030	000032	12/24/70	F34	70	FORD	GALAX	6487	351	8	0	1	0	2	1	1	0	71	62	30.02	4000	9
420031	000024	12/22/70	F34	70	FORD	GALAX	7875	351	8	0	1	0	2	1	1	0	68	55	30.02	4000	9
420032	000010	12/18/70	F34	70	FORD	GALAX	9704	351	8	0	1	0	2	1	1	0	70	62	30.32	4000	9
420044	000038	12/29/70	F34	70	FORD	STAWA	6878	351	8	0	1	0	2	1	1	0	68	62	30.33	4000	9
420045	000041	12/29/70	F34	70	MERC	CYCLO	7070	351	8	0	0	0	2	1	1	0	71	56	30.32	4000	9
420054	000057	01/07/71	F34	70	FORD	LTD	8615	351	8	0	1	0	2	1	1	0	70	64	30.62	4000	9
420061	000063	01/08/71	F34	70	FORD	GALAX	9219	351	8	0	0	0	2	1	1	0	71	61	30.60	4000	9
420072	000071	01/11/71	F34	70	FORD	GALAX	10020	351	8	0	0	0	2	1	1	0	75	65	30.22	4000	9
420074	000074	01/12/71	F34	70	FORD	STAWA	8287	351	8	0	1	0	2	1	1	0	72	65	30.61	4000	9
420076	000078	01/12/71	F34	70	FORD	MUSTA	7252	351	8	0	1	0	2	1	1	0	70	57	30.64	3500	9
420083	000085	01/13/71	F34	70	FORD	LTD	8491	351	8	0	1	0	2	1	1	0	70	61	30.51	4000	9
420085	000090	01/13/71	F34	70	MERC	COUGA	7318	351	8	0	0	0	2	1	1	0	68	62	30.31	3500	9
420110	000111	01/18/71	F34	70	FORD	GALAX	9733	351	8	0	0	0	2	1	1	0	72	61	30.20	4000	9
420113	000114	01/19/71	F34	70	FORD	GALAX	9783	351	8	0	1	0	2	1	1	0	69	53	30.33	4000	9
420114	000115	01/19/71	F34	70	FORD	LTD	8605	351	8	0	1	0	2	1	1	0	72	65	30.27	4000	9
420132	000131	01/21/71	F34	70	FORD	LTD	9960	351	8	0	0	0	2	1	1	0	74	64	30.00	4000	9
420143	000143	01/22/71	F34	70	FORD	BROUG	5154	351	8	0	1	0	2	1	1	0	74	62	30.22	4000	9
420151	000151	01/25/71	F34	70	FORD	CUSTO	9457	351	8	3	0	0	2	1	1	0	71	65	30.03	4000	9
420093	000099	01/14/71	F35	70	FORD	LTD	6918	390	8	0	1	0	2	1	1	0	68	52	30.30	4500	11
420116	000116	01/19/71	F35	70	FORD	LTD	6603	390	8	0	1	0	2	1	1	0	71	64	30.23	4500	11
420130	000127	01/21/71	F35	70	MERC	MONTG	9940	390	8	0	1	0	2	1	1	0	74	57	30.01	4500	11
420146	000146	01/24/71	F35	70	FORD	CUSTO	8115	390	8	0	1	0	2	1	1	0	72	60	30.24	4500	11
420148	000148	01/25/71	F35	70	FORD	LTD	5054	390	8	0	1	0	2	1	1	0	70	69	30.14	4500	11
420194	000194	02/03/71	F35	70	MERC	MONTR	5944	390	8	0	1	0	2	1	1	0	70	69	30.80	4500	11
420195	000195	02/03/71	F35	70	FORD	FORD	4171	390	8	0	1	0	2	1	1	0	74	64	30.82	4500	11
420198	000198	02/03/71	F35	70	FORD	CUSTO	14919	390	8	0	1	0	2	1	1	0	75	64	29.98	4500	11
420201	000201	02/04/71	F35	70	MERC	MONTR	12275	390	8	0	1	0	2	1	1	0	68	57	30.40	4500	11
420642	000979	10/29/71	F35	70	FORD	LDTRU	40233	390	8	0	0	0	2	1	1	0	71	63	30.42	4000	9
420104	000105	01/15/71	F36	70	MERC	BROUG	9776	429	8	0	1	0	4	1	1	0	69	58	30.52	4500	11
420246	000246	02/12/71	F36	70	FORD	THUND	8990	429	8	0	1	0	4	1	1	0	69	57	30.14	5000	11
420314	000335	02/26/71	F36	70	MERC	MARCU	12895	429	8	0	1	0	4	1	1	0	68	57	30.00	4500	11
420338	000384	03/10/71	F36	70	FORD	THUND	13550	429	8	0	1	0	4	1	1	0	69	59	30.02	5000	11
420406	000505	04/01/71	F37	70	FORD	ECONO	10124	240	6	3	0	0	1	1	1	0	68	57	30.01	4000	8
420587	000848	08/21/71	F37	70	FORD	ECONO	15129	240	6	3	0	0	1	1	1	0	80	70	29.85	4000	8
420593	000854	08/24/71	F37	70	FORD	ECONO	14483	240	6	0	0	0	1	1	1	0	68	58	30.16	4000	8
420047	000043	01/05/71	F38	70	FORD	FAIRL	9889	250	6	0	0	0	1	1	1	0	70	65	30.24	3500	8
420075	000081	01/12/71	F38	70	FORD	MAVER	6593	250	6	0	1	0	1	1	1	0	70	61	30.62	3000	8
420196	000196	02/03/71	F38	70	FORD	MUSTA	6517	250	6	0	0	0	1	1	1	0	74	67	30.80	3500	8
420380	000480	03/29/71	F38	70	FORD	FALCO	4269	250	6	3	0	0	1	1	1	0	68	57	30.01	3500	8

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DETROIT

1970 VEHICLES

CAR NO	ROT NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	DS	WB	RAWOM	INRT	HP
420424	000523	04/05/71	C12	70	PLYM	FURY	8670	318	8	0	0	0	2	1	1	0	69	63	30.84	4500	9
420429	000528	04/05/71	C12	70	DODG	CHARG	14039	318	8	0	0	0	2	1	1	0	68	57	30.74	4000	9
420439	000560	04/08/71	C12	70	DODG	CORON	5790	318	8	0	0	0	2	1	1	0	69	60	30.33	3500	9
420441	000562	04/08/71	C12	70	DODG	CHARG	11773	318	8	0	0	0	2	1	1	0	73	63	30.30	4000	9
420471	000620	04/13/71	C12	70	DODG	DART	9585	318	8	0	1	0	2	1	1	0	70	60	30.50	3500	9
420477	000625	04/20/71	C12	70	PLYM	SATEL	14996	318	8	0	0	0	2	1	1	0	71	61	30.30	3500	9
420479	000627	04/20/71	C12	70	DODG	SWING	7431	318	8	0	0	0	2	1	1	0	73	61	30.23	3500	9
420484	000632	04/21/71	C12	70	PLYM	BARRA	13720	318	8	0	0	0	2	1	1	0	69	59	30.00	3500	9
420485	000633	04/21/71	C12	70	PLYM	DUSTE	12710	318	8	0	0	0	2	1	1	0	70	60	30.00	3500	9
420507	000665	04/27/71	C12	70	PLYM	FURY	9978	318	8	0	1	0	2	1	1	0	70	60	30.30	4500	9
420069	000069	01/11/71	C13	70	CHRY	NEWPO	9789	383	8	0	0	0	2	1	1	0	71	62	30.31	4500	11
420165	000165	01/28/71	C13	70	PLYM	FURY	6311	383	8	0	1	0	2	1	1	0	67	60	30.10	4500	11
420230	000230	02/10/71	C13	70	CHRY	NEWPO	7538	383	8	0	1	0	2	1	1	0	68	57	30.12	4500	11
420278	000283	02/18/71	C13	70	CHRY	NEWPO	12561	383	8	0	1	0	2	1	1	0	70	58	30.41	4500	11
420280	000287	02/19/71	C13	70	CHRY	NEWPO	8623	383	8	0	1	0	2	1	1	0	70	59	30.02	4500	11
420306	000325	02/25/71	C13	70	CHRY	NEWPO	7669	383	8	0	1	0	2	1	1	0	65	55	30.13	4500	11
420339	000385	03/10/71	C13	70	CHRY	CHRYS	9466	383	8	0	1	0	2	1	1	0	69	59	30.02	4500	11
420395	000494	03/31/71	C13	70	PLYM	FURY	13882	383	8	0	1	0	2	1	1	0	70	65	30.33	4500	11
420399	000498	03/31/71	C13	70	PLYM	FURY	6018	383	8	0	0	0	2	1	1	0	71	60	30.32	4500	11
420404	000503	04/01/71	C13	70	CHRY	NEWPO	11658	383	8	0	1	0	2	1	1	0	68	60	30.03	4500	11
420433	000532	04/06/71	C13	70	CHRY	NEWPO	10826	383	8	0	1	0	2	1	1	0	68	59	30.63	4500	11
420451	000574	04/12/71	C13	70	DODG	CHARG	10244	383	8	0	1	0	2	1	1	0	68	58	30.14	4000	9
420452	000575	04/13/71	C14	70	CHRY	300	13741	440	8	0	1	0	4	1	1	0	70	62	30.20	4500	11
420500	000658	04/26/71	C14	70	CHRY	300	10682	440	8	0	1	0	4	1	1	0	74	64	30.23	5000	11
420155	000155	01/26/71	C15	70	PLYM	*CUDA	4901	340	8	1	0	0	4	1	1	0	70	58	29.51	3500	9
420480	000629	04/20/71	C15	70	DODG	SWING	8859	340	8	0	0	0	4	1	1	0	74	64	30.22	3500	8
420427	000526	04/05/71	C17	70	PLYM	FURY	10218	383	8	0	1	0	4	1	1	0	68	54	30.80	4500	11
420578	000837	08/13/71	C17	70	CHRY	NEWPO	25261	383	8	0	0	0	4	1	1	0	73	64	30.01	4500	11
420431	000530	04/05/71	C19	70	DODG	CHARG	13225	440	8	0	1	0	4	1	1	0	71	64	30.74	4000	9
420488	000587	04/14/71	C19	70	PLYM	GTX	14310	440	8	0	1	0	4	1	1	0	69	57	30.50	4000	9
420051	000050	01/06/71	F30	70	FORD	MAVER	2932	170	6	1	0	0	1	1	1	0	65	52	30.52	2750	4
420084	000083	01/13/71	F30	70	FORD	MAVER	7133	170	6	0	0	0	1	1	1	0	70	63	30.32	2750	4
420145	000145	01/22/71	F30	70	FORD	MAVER	6801	170	6	1	0	0	1	1	1	0	70	65	30.23	2750	4
420412	000511	04/02/71	F30	70	FORD	MAVER	11339	170	6	0	0	0	1	1	1	0	68	62	30.12	2750	4
420503	000661	04/27/71	F30	70	FORD	MAVER	11734	170	6	1	0	0	1	1	1	0	71	60	30.30	2750	4
420003	000003	12/16/70	F32	70	FORD	MAVER	2246	200	6	0	0	0	1	1	1	0	71	60	30.14	2750	4
420048	000051	01/06/71	F32	70	FORD	MAVER	5398	200	6	0	0	0	1	1	1	0	70	61	30.70	2750	4
420095	000092	01/14/71	F32	70	FORD	MAVER	8023	200	6	0	0	0	1	1	1	0	70	58	30.12	2750	4
420101	000102	01/15/71	F32	70	FORD	MAVER	5867	200	6	0	0	0	1	1	1	0	69	62	30.52	2750	4
420182	000182	01/29/71	F32	70	FORD	MAVER	6232	200	6	1	0	0	1	1	1	0	69	62	28.91	2750	4
420340	000387	03/11/71	F32	70	FORD	MAVER	11485	200	6	0	0	0	1	1	1	0	70	61	30.23	2750	4
420341	000388	03/11/71	F32	70	FORD	MAVER	12704	200	6	0	0	0	1	1	1	0	70	63	30.20	2750	4
420440	000561	04/08/71	F32	70	FORD	MAVER	14527	200	6	1	0	0	1	1	1	0	73	63	30.41	2750	4
420037	000031	12/24/70	F33	70	FORD	MUSTA	5087	302	8	0	0	0	2	1	1	0	72	62	30.04	3500	8
420040	000036	12/28/70	F33	70	FORD	CUSTO	5593	302	8	0	0	0	2	1	1	0	64	51	30.24	4000	8
420041	000039	12/29/70	F33	70	MERC	MONTG	5148	302	8	0	1	0	2	1	1	0	70	56	30.33	3500	8
420079	000079	01/12/71	F33	70	MERC	MONTG	6489	302	8	0	1	0	2	1	1	0	70	61	30.62	3500	8
420080	000080	01/12/71	F33	70	FORD	TORIN	7262	302	8	0	0	0	2	1	1	0	71	62	30.62	3500	8
420092	000097	01/14/71	F33	70	FORD	MUSTA	8356	302	8	0	0	0	2	1	1	0	70	61	30.22	3500	8
420111	000112	01/18/71	F33	70	FORD	MUSTA	8074	302	8	0	0	0	2	1	1	0	71	60	30.20	3500	8

DETROIT — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	REG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	PSD	BBL	PCV	EXH	EVP	DR	BR	BAROM	INJT	HP
420059	000061	01/06/71	A	1	70	AMER	HORNE	5906	232	6	3	0	0	1	1	1	0	68	59	30.61	3600	9
420091	000098	01/14/71	A	1	70	AMER	HORNE	6207	232	6	0	1	0	1	1	1	0	74	68	30.24	3900	8
420359	000424	03/17/71	A	1	70	AMER	REBEL	7565	232	6	0	0	0	1	1	1	0	68	59	30.42	3500	8
420428	000527	04/05/71	A	1	70	AMER	HORNE	7442	232	6	0	0	0	1	1	1	0	68	59	30.80	3600	8
420463	000611	04/16/71	A	1	70	AMER	HORNE	10865	232	6	0	1	0	1	1	1	0	75	65	30.30	4000	8
420478	000639	04/21/71	A	1	70	AMER	GREML	13848	232	6	3	0	0	1	1	1	0	70	60	29.74	3800	8
420487	000635	04/21/71	A	1	70	AMER	HORNE	7934	232	6	3	0	0	1	1	1	0	70	60	30.09	3800	8
420521	000634	05/03/71	A	1	70	AMER	HORNE	6291	232	6	0	0	0	1	1	1	0	71	60	30.67	3800	8
420522	000635	05/03/71	A	1	70	AMER	HORNE	10607	232	6	0	0	0	1	1	1	0	70	60	30.63	3800	8
420173	000173	01/29/71	A	2	70	AMER	GREML	8167	199	6	3	0	0	1	1	1	0	71	60	30.10	3800	9
420510	000668	04/27/71	A	2	70	AMER	HORNE	13009	199	6	0	0	0	1	1	1	0	70	60	30.19	3800	8
420264	000264	02/17/71	A	3	70	AMER	REBEL	9231	232	6	0	0	0	2	1	1	0	70	60	30.13	3500	8
420386	000483	03/30/71	A	3	70	AMER	AMBAS	13654	232	6	0	1	0	2	1	1	0	73	60	30.30	4000	8
420425	000524	04/05/71	A	3	70	AMER	REBEL	4817	232	6	0	0	0	2	1	1	0	69	61	30.83	3500	8
420410	000503	04/01/71	A	5	70	AMER	HORNE	6342	304	8	0	0	0	2	1	1	0	68	58	30.00	3900	8
420413	000512	04/02/71	A	5	70	AMER	HORNE	14711	304	8	0	0	0	2	1	1	0	69	58	30.12	3900	8
420460	000608	04/16/71	A	5	70	AMER	AMBAS	8378	304	8	0	1	0	2	1	1	0	70	60	30.40	4000	8
420462	000610	04/16/71	A	5	70	AMER	REBEL	7538	304	8	0	0	0	2	1	1	0	74	60	30.40	4000	8
420248	000248	02/12/71	A	7	70	AMER	AMBAS	6500	360	8	0	1	0	2	1	1	0	70	60	30.13	4000	9
420334	000403	03/31/71	A	9	70	AMER	AMX	13404	360	8	0	1	0	4	1	1	0	68	57	30.33	3500	9
* 420021	000029	12/23/70	C10		70	DODG	SWING	4164	198	6	0	0	0	1	1	1	0	71	65	29.90	3500	9
420438	000656	04/26/71	C10		70	DODG	SWING	6912	198	6	0	0	0	1	1	1	0	70	60	30.13	3800	8
420506	000664	04/27/71	C10		70	DODG	DART	13397	198	6	0	0	0	1	1	1	0	69	59	30.30	3900	8
420550	000756	05/12/71	C10		70	PLYM	DUSTE	6447	198	6	3	0	0	1	1	1	0	68	57	30.52	3800	8
420123	000124	01/25/71	C11		70	DODG	DART	4470	225	6	0	0	0	1	1	1	0	73	68	30.50	3500	9
420185	000185	02/01/71	C11		70	PLYM	DUSTE	3357	225	6	0	0	0	1	1	1	0	67	55	30.30	3500	8
420207	000207	02/05/71	C11		70	PLYM	DUSTE	7417	225	6	3	0	0	1	1	1	0	75	65	29.45	3500	8
420325	000343	03/02/71	C11		70	DODG	CORON	5735	225	6	0	0	0	1	1	1	0	70	60	30.14	3500	8
420383	000479	03/29/71	C11		70	PLYM	DUSTE	8873	225	6	0	0	0	1	1	1	0	71	56	30.01	3500	8
420388	000487	03/30/71	C11		70	DODG	SWING	5388	225	6	0	1	0	1	1	1	0	70	59	30.32	3500	8
420391	000490	03/30/71	C11		70	DODG	DART	10957	225	6	0	0	0	1	1	1	0	70	60	30.33	3500	8
420403	000502	04/01/71	C11		70	PLYM	DUSTE	5741	225	6	0	0	0	1	1	1	0	69	57	30.02	3500	8
420420	000519	04/02/71	C11		70	PLYM	DUSTE	8100	225	6	0	0	0	1	1	1	0	69	57	30.12	3500	8
420430	000529	04/05/71	C11		70	DODG	SWING	10457	225	6	0	0	0	1	1	1	0	71	64	30.74	3500	8
420443	000564	04/12/71	C11		70	DODG	SWING	13939	225	6	0	0	0	1	1	1	0	72	66	30.49	3500	8
420456	000604	04/15/71	C11		70	DODG	DART	6700	225	6	0	0	0	1	1	1	0	74	65	30.42	3500	8
420473	000619	04/19/71	C11		70	DODG	DART	13810	225	6	0	0	0	1	1	1	0	70	60	30.50	3500	8
420481	000629	04/20/71	C11		70	PLYM	DUSTE	11110	225	6	3	0	0	1	1	1	0	75	65	30.22	3500	8
420018	000028	12/23/70	C12		70	PLYM	FURY	5731	318	8	0	1	0	2	1	1	0	70	61	29.90	4500	9
420019	000023	12/22/70	C12		70	PLYM	FURY	9392	318	8	0	1	0	2	1	1	0	66	55	30.02	4500	9
420022	000020	12/22/70	C12		70	PLYM	FURY	8564	318	8	0	1	0	2	1	1	0	72	59	30.02	4500	9
420025	000035	12/24/70	C12		70	PLYM	FURY	7525	318	8	0	1	0	2	1	1	0	70	60	30.45	4500	9
420053	000054	01/01/71	C12		70	DODG	POLAR	5325	318	8	0	1	0	2	1	1	0	68	55	30.60	4500	9
420105	000106	01/15/71	C12		70	CHRY	NEWA	3975	318	8	0	1	0	2	1	1	0	68	61	30.51	3500	9
420119	000120	01/13/71	C12		70	PLY	SATEL	5967	318	8	0	1	0	2	1	1	0	72	62	30.34	3500	9
420126	000126	01/20/71	C12		70	DODG	POLAR	7307	318	8	0	0	0	2	1	1	0	70	61	30.50	4500	9
420158	000158	01/27/71	C12		70	PLYM	SATEL	5903	318	8	0	0	0	2	1	1	0	68	65	30.30	3500	9
420253	000253	02/16/71	C12		70	PLYM	FURY	12621	318	8	0	0	0	2	1	1	0	71	61	30.50	4500	9
420395	000482	03/29/71	C12		70	PLYM	DUSTE	17093	318	8	3	0	0	2	1	1	0	71	59	30.02	3500	9
420409	000508	04/01/71	C12		70	PLYM	SATEL	14541	318	8	0	0	0	2	1	1	0	68	60	30.00	3500	9

DETROIT — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOM	CID	CYL	TRN	A/C	FSO	BRL	PCV	EXH	EVP	DR	AM	BAROM	INRT	HP
420647	201010	11/17/71	GS3	70	CHEV	NOVA	23664	307	8	0	0	0	2	1	1	0	72	62	29.53	3500	8
420648	001011	11/24/71	GS3	70	CHEV	NOVA	30505	307	8	0	0	0	2	1	1	0	75	63	29.50	3500	8
420649	001013	11/24/71	GS3	70	CHEV	CAMAR	33059	307	8	3	0	0	2	1	1	0	74	63	29.60	3500	8
420650	001015	11/26/71	GS3	70	CHEV	MALIB	28574	307	8	0	0	0	2	1	1	0	73	62	29.48	3500	8
420057	000058	01/07/71	GS5	70	CHEV	MONTE	8213	350	8	0	1	0	4	1	1	0	68	58	30.62	4000	9
420337	000481	03/10/71	GS5	70	CHEV	CORVE	8807	350	8	4	0	0	4	1	2	0	67	55	30.13	3500	9
420472	000621	04/20/71	GS5	70	CHEV	CORVE	9620	350	8	0	0	0	4	1	1	0	72	62	30.32	3500	9
420473	000622	04/20/71	GS5	70	CHEV	MONTE	12764	350	8	0	0	0	4	1	1	0	72	62	30.32	4000	9
420475	000624	04/20/71	GS5	70	CHEV	CHEVR	11747	350	8	0	0	0	4	1	1	0	70	60	30.30	4000	9
420491	000638	04/21/71	GS5	70	CHEV	NOVA	13134	350	8	0	0	0	4	1	1	0	69	59	30.00	3500	9
420557	000763	05/12/71	GS5	70	CHEV	CORVE	14186	350	8	4	1	0	4	1	2	0	69	58	30.50	3500	9
420586	000847	08/21/71	GS5	70	CHEV	CHEVR	32776	350	8	0	1	0	4	1	1	0	78	71	29.92	4500	11
420604	000866	09/04/71	GS5	70	CHEV	IMPAL	12065	350	8	0	1	0	4	1	1	0	78	74	29.32	4500	11
420606	000868	09/04/71	GS5	70	CHEV	MONTE	26734	350	8	0	0	0	4	1	1	0	78	74	29.32	4000	9
420608	000870	09/08/71	GS5	70	CHEV	CHEVT	17231	350	8	0	1	0	4	1	1	0	80	74	30.01	4500	9
420609	000871	09/08/71	GS5	70	CHEV	CHEVR	27776	350	8	0	0	0	4	1	1	0	81	74	30.02	4500	11
420622	000903	10/01/71	GS5	70	CHEV	MONTE	11311	350	8	0	0	0	4	1	1	0	77	70	30.23	4000	9
420638	000972	10/28/71	GS5	70	CHEV	IMPAL	38609	350	8	0	1	0	4	1	1	0	75	64	30.31	4500	11
420639	000973	10/29/71	GS6	70	CHEV	LDTRU	22590	292	6	0	0	0	1	1	1	0	72	65	30.31	4000	8
420004	000004	12/16/70	GS7	70	CHEV	IMPAL	7776	350	8	0	1	0	2	1	1	0	71	60	30.07	4500	11
420005	000005	12/16/70	GS7	70	CHEV	IMPAL	8098	350	8	0	1	0	2	1	1	0	71	60	30.07	4500	11
420006	000006	12/17/70	GS7	70	CHEV	IMPAL	5340	350	8	0	1	0	2	1	1	0	74	60	30.14	4500	11
420009	000044	01/04/71	GS7	70	CHEV	IMPAL	9113	350	8	0	1	0	2	1	1	0	63	52	29.73	4500	11
420013	000021	12/22/70	GS7	70	CHEV	IMPAL	8198	350	8	0	1	0	2	1	1	0	72	60	30.00	4500	11
420020	000011	12/16/70	GS7	70	CHEV	IMPAL	3549	350	8	0	1	0	2	1	1	0	70	62	30.32	4500	11
420024	000008	12/18/70	GS7	70	CHEV	IMPAL	9776	350	8	0	1	0	2	1	1	0	74	63	30.34	4500	11
420026	000025	12/23/70	GS7	70	CHEV	IMPAL	5554	350	8	0	1	0	2	1	1	0	73	58	30.02	4500	11
420028	000017	12/21/70	GS7	70	CHEV	IMPAL	7291	350	8	0	1	0	2	1	1	0	75	62	30.33	4500	11
420029	000019	12/22/70	GS7	70	CHEV	IMPAL	8445	350	8	0	1	0	2	1	1	0	72	60	30.01	4500	11
420063	000062	01/08/71	GS7	70	CHEV	IMPAL	9778	350	8	0	1	0	2	1	1	0	70	61	30.63	4500	11
420090	000096	01/14/71	GS7	70	CHEV	BELAI	6106	350	8	0	0	0	2	1	1	0	70	62	30.23	4500	11
420134	000133	01/21/71	GS7	70	CHEV	CAPRI	7811	350	8	0	1	0	2	1	1	0	72	62	29.94	4500	11
420174	000174	01/29/71	GS7	70	CHEV	IMPAL	8133	350	8	0	1	0	2	1	1	0	68	57	30.10	4500	11
420179	000179	01/29/71	GS7	70	CHEV	MONTE	8293	350	8	0	1	0	2	1	1	0	65	58	30.00	4000	9
420243	000243	02/11/71	GS7	70	CHEV	IMPAL	4527	350	8	0	0	0	2	1	1	0	72	62	30.03	4500	11
420251	000251	02/15/71	GS7	70	CHEV	IMPAL	15376	350	8	0	1	0	2	1	1	0	73	64	30.14	4500	11
420257	000257	02/16/71	GS7	70	CHEV	CAMAR	14661	350	8	0	1	0	2	1	1	0	70	57	30.50	3500	9
420260	000260	02/16/71	GS7	70	CHEV	IMPAL	11103	350	8	0	1	0	2	1	1	0	69	58	30.50	4500	11
420321	000345	03/02/71	GS7	70	CHEV	IMPAL	10122	350	8	0	1	0	2	1	1	0	68	55	30.40	4500	11
420496	000654	04/26/71	GS7	70	CHEV	NOVA	12030	350	8	3	0	0	2	1	1	0	69	59	30.20	3500	9
420641	000978	10/29/71	GS7	70	CHEV	CHEVR	57714	350	8	0	1	0	2	1	1	0	71	63	30.42	4500	11
420644	000981	10/29/71	GS7	70	CHEV	IMPAL	62492	350	8	0	1	0	2	1	1	0	72	63	30.42	4500	11
420367	000484	03/30/71	GS3	70	CHEV	CHEVR	7264	400	8	0	1	0	2	1	1	0	70	59	30.30	4500	11
420400	000493	03/31/71	GS9	70	CHEV	IMPAL	4090	400	8	0	1	0	2	1	1	0	68	57	30.20	4500	11
420426	000525	04/05/71	GS3	70	CHEV	CHEVR	14263	400	8	0	0	0	2	1	1	0	69	60	30.21	4500	11
420442	000563	04/08/71	GS9	70	CHEV	IMPAL	14429	400	8	0	1	0	2	1	1	0	73	64	30.31	4500	11
420474	000623	04/20/71	GS9	70	CHEV	CAPRI	10112	400	8	0	1	0	2	1	1	0	69	62	30.30	4500	11
420505	000663	04/27/71	GS9	70	CHEV	IMPAL	11403	400	8	0	1	0	2	1	1	0	70	63	30.30	4500	11
420524	000697	05/05/71	GS9	70	CHEV	IMPAL	14072	400	8	0	1	0	2	1	1	0	73	63	30.70	4500	11
420645	000982	10/29/71	G60	70	CHEV	CHEVE	28969	396	8	4	0	0	4	1	2	0	75	64	30.42	4000	8

DETROIT — 1972 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BPL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DR	WR	CARBR	INRT	HP
420002	000063	09/01/71	G63	72	CHEV	NOVA	10146	402	8	4	0	0	4	1	2	0	73	66	30.21	4000	9
420004	000001	01/14/71	G64	72	CHEV	CHEVP	9316	454	8	0	1	0	4	1	1	0	70	58	30.12	4500	10
420043	000042	12/30/70	G61	72	PONT	CATAL	8352	350	8	0	1	0	2	1	1	0	60	49	30.41	4500	11
420062	000060	01/08/71	G61	72	PONT	TEMPE	9462	350	8	0	0	0	2	1	1	0	68	63	30.63	4000	9
420081	000083	01/13/71	G61	72	PONT	CATAL	6008	350	8	0	0	0	2	1	1	0	70	59	30.54	4500	11
420096	000094	01/14/71	G61	72	PONT	CATAL	7976	350	8	0	0	0	2	1	1	0	70	64	30.21	4500	11
420170	000170	01/28/71	G61	72	PONT	CATAL	8594	350	8	0	0	0	2	1	1	0	65	55	30.12	4500	11
420187	000187	02/01/71	G61	72	PONT	FIRER	10647	350	8	0	0	0	2	1	1	0	68	57	30.30	4000	9
420188	000188	02/01/71	G61	72	PONT	LEMAN	8305	350	8	0	0	0	2	1	1	0	68	57	30.30	4000	9
420205	000205	02/04/71	G61	72	PONT	LEMAN	8580	350	8	0	1	0	2	1	1	0	68	55	30.21	4000	9
420336	000350	03/10/71	G61	72	PONT	CATAL	12023	350	8	0	1	0	2	1	1	0	70	63	30.14	4500	11
420261	000261	02/16/71	G62	72	PONT	CATAL	12855	400	8	0	0	0	2	1	1	0	68	57	30.50	4500	11
420372	000491	03/30/71	G62	72	PONT	CATAL	14114	400	8	0	1	0	2	1	1	0	73	64	30.30	4500	11
420415	000514	04/02/71	G62	72	PONT	CATAL	10196	400	8	0	1	0	2	1	1	0	69	57	30.12	4500	11
420437	000558	04/06/71	G62	72	PONT	CATAL	7481	400	8	0	1	0	2	1	1	0	74	66	30.41	4500	11
420509	000667	04/27/71	G62	72	PONT	CATAL	10353	400	8	0	1	0	2	1	1	0	72	58	30.19	4500	11
420634	000921	10/07/71	G62	72	PONT	CATAL	21508	400	8	0	1	0	2	1	1	0	77	68	30.11	4500	11
420109	000110	01/18/71	G68	72	PONT	GRAND	9340	400	8	0	1	0	4	1	1	0	73	57	30.14	4500	11
420190	000190	02/02/71	G68	72	PONT	GRAND	7447	400	8	0	1	0	4	1	1	0	69	67	30.81	4500	11
420191	000191	02/02/71	G68	72	PONT	FIRER	4460	400	8	0	0	0	4	1	1	0	70	65	30.81	4000	9
420443	000572	04/12/71	G68	72	PONT	GRAND	11742	400	8	0	1	0	4	1	1	0	80	71	30.30	4500	11
420458	000606	04/15/71	G68	72	PONT	GRAND	14113	400	8	0	1	0	4	1	1	0	70	60	30.40	4500	11
420560	000839	08/14/71	G68	72	PONT	FIRER	11703	400	8	0	0	0	4	1	1	0	83	71	30.04	4000	9
420591	000852	09/23/71	G69	72	PONT	GRAND	26345	400	8	0	1	0	4	1	1	0	74	65	30.01	4500	11
420397	000496	04/31/71	G70	72	PONT	BONNE	7311	455	8	0	0	0	4	1	1	0	69	55	30.32	5000	11
420398	000497	03/31/71	G70	72	PONT	BONNE	7338	455	8	0	1	0	4	1	1	0	73	57	30.32	5000	11
420408	000507	04/01/71	G70	72	PONT	BONNE	14402	455	8	0	1	0	4	1	1	0	68	62	30.00	5000	11
420444	000565	04/12/71	G70	72	PONT	BONNE	5866	455	8	0	1	0	4	1	1	0	72	65	30.34	5000	11
420445	000566	04/12/71	G70	72	PONT	BONNE	9209	455	8	0	1	0	4	1	1	0	70	63	30.34	5000	11
420043	000047	01/05/71	G66	72	OLDS	CUTLA	5446	350	8	0	0	0	2	1	1	0	68	55	30.21	4000	9
420055	000056	01/07/71	G66	72	OLDS	CUTLA	6203	350	8	0	1	0	2	1	1	0	68	56	30.61	4000	9
420112	000113	01/18/71	G66	72	OLDS	DELTA	9259	350	8	0	0	0	2	1	1	0	70	60	30.20	4500	11
420390	000489	03/30/71	G66	72	OLDS	CUTLA	10634	350	8	0	0	0	2	1	1	0	71	61	30.32	4000	9
420461	000609	04/16/71	G66	72	OLDS	CUTLA	6282	350	8	0	0	0	2	1	1	0	71	60	30.40	4000	9
420467	000615	04/13/71	G66	72	OLDS	CUTLA	13088	350	8	0	0	0	2	1	1	0	72	60	30.54	4000	9
420483	000631	04/21/71	G66	72	OLDS	DELTA	14939	350	8	0	1	0	2	1	1	0	70	60	30.00	4500	11
420493	000651	04/26/71	G66	72	OLDS	EIGHT	9263	350	8	0	0	0	2	1	1	0	69	59	30.14	4500	11
420494	000652	04/26/71	G66	72	OLDS	CUTLA	11503	350	8	0	0	0	2	1	1	0	69	59	30.13	4000	9
420564	000781	05/14/71	G66	72	OLDS	OLDSM	8023	350	8	0	1	0	2	1	1	0	70	60	30.71	4500	11
420635	000969	10/28/71	G66	72	OLDS	DELTA	14921	350	8	0	0	0	2	1	1	0	76	65	30.22	4500	11
420115	000118	01/13/71	G67	72	OLDS	DELTA	7765	455	8	0	0	0	4	1	1	0	70	62	30.40	5000	11
420457	000605	04/15/71	G67	72	OLDS	NINET	7067	455	8	0	1	0	4	1	1	0	70	60	30.40	5000	11
420581	000840	08/14/71	G67	72	OLDS	NINET	32645	455	8	0	1	0	4	1	1	0	82	70	30.04	5000	11
420593	000851	08/21/71	G67	72	OLDS	NINET	31783	455	8	0	1	0	4	1	1	0	86	76	29.86	5000	11
420630	000916	10/06/71	G67	72	OLDS	NINET	23270	455	8	0	1	0	4	1	1	0	72	65	29.90	5000	11
420589	000850	08/21/71	G72	72	OLDS	CUTLA	13154	350	8	0	1	0	4	1	1	0	84	73	29.86	4000	9
420138	000163	01/28/71	G73	72	OLDS	CUTLA	5613	455	8	0	0	0	2	1	1	0	67	58	30.13	5000	11
420290	000304	02/23/71	G73	72	OLDS	DELTA	9616	455	8	0	0	0	2	1	1	0	70	53	29.71	5000	11
420423	000522	04/05/71	G73	72	OLDS	EIGHT	11417	455	8	0	1	0	2	1	1	1	68	57	30.84	5000	11
420453	000576	04/13/71	G73	72	OLDS	DELTA	14035	455	8	0	1	0	2	1	1	0	69	60	30.20	5000	11

DETROIT — 1971 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	DB	HP	BAROM	INRT	HP
420592	000853	08/24/71	G73	70	OLDS	CUTLA	25712	455	8	0	1	0	2	1	1	0	68	59	30.15	5000	11
420629	000912	10/05/71	G73	70	OLDS	DELTA	24700	455	8	0	1	0	2	1	1	0	76	70	30.09	5000	11
420171	000171	01/28/71	G71	70	BUIC	SKYLA	6724	350	8	0	0	0	4	1	1	0	70	62	30.14	4000	9
420467	000617	04/13/71	G71	70	BUIC	SKYLA	11153	350	8	0	0	0	4	1	1	0	72	60	30.54	4000	9
420476	000618	04/13/71	G71	70	BUIC	LESAB	16889	350	8	0	1	0	4	1	1	0	73	63	30.54	5000	11
420437	000655	04/26/71	G71	70	BUIC	LESAB	7428	350	8	0	1	0	4	1	1	0	70	60	30.10	5000	11
420015	000026	12/23/70	G74	70	BUIC	SKYLA	8415	350	8	0	1	0	2	1	1	0	72	64	30.02	4000	9
420023	000027	12/23/70	G74	70	BUIC	SKYLA	9031	350	8	0	1	0	2	1	1	0	70	63	29.92	4000	9
420033	000007	12/17/70	G74	70	BUIC	SKYLA	9367	350	8	0	0	0	2	1	1	0	75	65	31.13	4000	9
420036	000033	12/24/70	G74	70	BUIC	SKYLA	7369	350	8	0	1	0	2	1	1	0	70	60	30.20	4000	9
420050	000048	01/05/71	G74	70	BUIC	SKYLA	9630	350	8	0	0	0	2	1	1	0	72	65	30.24	4000	9
420066	000073	01/11/71	G74	70	BUIC	SKYLA	8332	350	8	0	0	0	2	1	1	0	72	65	30.22	4000	9
420068	000072	01/11/71	G74	70	BUIC	SKYLA	9780	350	8	0	1	0	2	1	1	0	72	65	30.21	4000	9
420100	000101	01/15/71	G74	70	BUIC	LESAB	7633	350	8	0	0	0	2	1	1	0	74	68	30.52	5000	11
420082	000082	01/13/71	G75	70	BUIC	ELECT	8694	455	8	0	1	0	4	1	1	0	70	62	30.54	5000	11
420125	000123	01/20/71	G75	70	BUIC	LESAB	9322	455	8	0	1	0	4	1	1	0	71	62	30.44	5000	11
420217	000217	02/08/71	G75	70	BUIC	ELECT	7332	455	8	0	1	0	4	1	1	0	75	65	30.10	5000	11
420262	000262	02/16/71	G75	70	BUIC	LESAB	12023	455	8	0	1	0	4	1	1	0	71	60	30.50	5000	11
420389	000468	03/30/71	G75	70	BUIC	ELECT	11047	455	8	0	1	0	4	1	1	0	74	59	30.33	5000	11
420448	000569	04/12/71	G75	70	BUIC	ELECT	12471	455	8	0	1	0	4	1	1	0	70	61	30.33	5000	11
420464	000612	04/16/71	G75	70	BUIC	ELECT	4336	455	8	0	1	0	4	1	1	0	77	67	30.24	5000	11
420501	000659	04/26/71	G75	70	BUIC	ELECT	14869	455	8	0	1	0	4	1	1	0	69	59	30.22	5000	11
420502	000660	04/26/71	G75	70	BUIC	ELECT	7713	455	8	0	1	0	4	1	1	0	70	60	30.22	5000	11
420504	000562	04/27/71	G75	70	BUIC	ELECT	14836	455	8	0	1	0	4	1	1	0	70	60	30.30	5000	11
420588	000649	06/21/71	G75	71	BUIC	RIVIE	22335	455	8	0	1	0	4	1	1	0	81	72	29.86	5000	11
420149	000149	01/25/71	G77	70	CADI	DEVIL	5320	472	8	0	1	0	4	1	1	0	69	62	30.12	5500	11
420157	000157	01/27/71	G77	70	CADI	DEVIL	7727	472	8	0	1	0	4	1	1	0	69	62	30.24	5500	11
420402	000501	04/01/71	G77	70	CADI	DEVIL	13433	472	8	0	1	0	4	1	1	0	70	62	30.02	5500	11
420459	000607	04/16/71	G77	70	CADI	DEVIL	5876	472	8	0	1	0	4	1	1	0	72	62	30.31	5500	11
420465	000613	04/16/71	G77	70	CADI	DEVIL	13132	472	8	0	1	0	4	1	1	0	75	65	30.23	5500	11
420490	000637	04/21/71	G77	70	CADI	DEVIL	7006	472	8	0	1	0	4	1	1	0	70	60	29.93	5500	11
420579	000838	08/14/71	G77	70	CADI	DEVIL	21406	472	8	0	1	0	4	1	1	0	80	70	30.00	5500	11
420200	000200	02/04/71	V82	70	VOLK	FTBK	3926	97	4	4	0	1	0	1	1	0	70	60	30.40	2500	7
420393	000492	03/31/71	V82	70	VOLK	SQBK	7100	97	4	4	0	1	0	1	1	0	74	60	30.34	2500	7
420413	000518	04/02/71	V82	70	VOLK	SQBK	5920	97	4	4	0	1	0	1	1	0	69	57	30.12	2500	7
420577	000836	08/12/71	V82	70	VOLK	FTBK	16725	97	4	0	0	1	0	1	1	0	70	63	30.02	2500	7
420034	000012	12/18/70	V83	70	VOLK	BEETL	4670	97	4	4	0	0	1	1	1	0	73	60	30.30	2250	6
420064	000066	01/12/71	V83	70	VOLK	BEETL	4648	97	4	4	0	0	1	1	1	0	70	57	30.24	2250	6
420103	000104	01/15/71	V83	70	VOLK	BEETL	6832	97	4	4	0	0	1	1	1	0	70	61	30.52	2250	6
420106	000107	01/15/71	V83	70	VOLK	BUS	9370	97	4	4	0	0	1	1	1	0	70	61	30.52	3000	12
420152	000152	01/26/71	V83	70	VOLK	BEETL	5382	97	4	0	0	0	1	1	1	0	71	65	29.40	2250	6
420162	000162	01/27/71	V83	70	VOLK	BEETL	8148	97	4	4	0	0	1	1	1	0	64	57	30.22	2250	6
420164	000164	01/28/71	V83	70	VOLK	BEETL	7444	97	4	4	0	0	1	1	1	0	69	61	30.10	2250	6
420166	000166	01/28/71	V83	70	VOLK	BEETL	4352	97	4	4	0	0	1	1	1	0	68	61	30.10	2250	6
420172	000172	01/29/71	V83	70	VOLK	BEETL	4529	97	4	4	0	0	1	1	1	0	66	57	30.10	2250	6
420180	000180	01/29/71	V83	70	VOLK	BEETL	8228	97	4	4	0	0	1	1	1	0	70	65	29.92	2250	6
420184	000184	02/01/71	V83	70	VOLK	BEETL	8197	97	4	4	0	0	1	1	1	0	68	56	30.30	2250	6
420193	000193	02/03/71	V83	70	VOLK	BEETL	4487	97	4	4	0	0	1	1	1	0	71	60	30.81	2250	6
420197	000197	02/03/71	V83	70	VOLK	BEETL	10761	97	4	4	0	0	1	1	1	0	78	68	29.98	2250	6
420199	000199	02/04/71	V83	70	VOLK	BEETL	12320	97	4	4	0	0	1	1	1	0	68	57	30.41	2250	6

1970 VEHICLES

COLD START VEHICLE INFORMATION

DETROIT CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	CODE	CID	CYL	TRN	A/C	FSC	BRL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
420203	000203	02/04/71	VW3	70	VOLK	BEETL	14022	97	4	0	0	0	1	1	1	0	72	65	30.31	2250	6
420466	000614	04/16/71	VW3	70	VOLK	BEETL	10593	97	4	0	0	0	1	1	1	0	72	60	30.22	2250	6

TABLE A-5

Denver

1970 VEHICLES

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TAN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	DR	WB	BAROM	INRT	HP
520014	100563	05/20/71	A	1	70	AMER	JAVEL	14358	232	6	0	0	0	1	1	1	0	70	60	24.95	3000	8
520128	100511	05/10/71	A	1	70	AMER	REBEL	4737	232	6	3	0	0	1	1	1	0	72	62	25.00	3500	8
520129	100465	04/30/71	A	1	70	AMER	JAVEL	7811	232	6	3	0	0	1	1	1	0	71	57	25.10	3000	8
520139	100564	05/20/71	A	1	70	AMER	GREML	7278	232	6	3	0	0	1	1	1	0	70	60	24.95	3000	8
520150	100492	05/06/71	A	1	70	AMER	HORNE	6842	232	6	0	0	0	1	1	1	0	72	60	24.85	3000	8
520185	100585	05/26/71	A	1	70	AMER	HORNE	14805	232	6	0	0	0	1	1	1	0	70	64	25.00	3000	8
520308	100596	05/28/71	A	1	70	AMER	HORNE	10174	232	6	0	0	0	1	1	1	0	71	63	24.90	3000	8
520309	100594	05/28/71	A	1	70	AMER	HORNE	14950	232	6	0	0	0	1	1	1	0	71	63	24.90	3000	8
520323	100614	06/02/71	A	1	70	AMER	HORNE	7688	232	6	3	0	0	1	1	1	0	72	64	24.84	3000	8
520315	100610	06/04/71	A	2	70	AMER	HORNE	14966	199	6	3	0	0	1	1	1	0	70	60	24.89	3000	8
520067	100057	02/18/71	A	3	70	AMER	HORNE	9578	232	6	0	0	0	2	1	1	0	72	54	24.74	3000	8
520312	100605	06/04/71	A	3	70	AMER	HORNE	14693	232	6	0	1	0	2	1	1	0	70	60	24.89	3000	8
520015	100017	02/09/71	A	5	70	AMER	JAVEL	11128	304	8	0	0	0	2	1	1	0	72	54	25.03	3500	8
520173	100432	04/27/71	A	5	70	AMER	HORNE	10749	304	8	0	1	0	2	1	1	0	70	53	24.70	3000	8
520211	100521	05/12/71	A	5	70	AMER	HORNE	5491	304	8	0	0	0	2	1	1	0	70	60	25.15	3000	8
520310	100595	05/28/71	A	5	70	AMER	HORNE	7520	304	8	0	1	0	2	1	1	0	71	63	24.90	3000	8
520314	100603	06/02/71	A	7	70	AMER	REBEL	5577	360	8	0	1	0	2	1	1	0	72	60	24.92	4000	9
520304	100591	05/27/71	A	8	70	AMER	JAVEL	9442	360	8	4	0	0	4	1	2	0	73	63	25.00	3500	9
520068	100514	05/11/71	A	9	70	AMER	AMBAS	7796	360	8	0	1	0	4	1	1	0	71	61	25.25	4000	9
520243	100496	05/06/71	A	10	70	AMER	AMBAS	6877	390	8	0	1	0	4	1	1	0	72	60	24.85	4000	9
520151	100118	03/03/71	C	10	70	PLYM	VALIA	8774	198	6	0	0	0	1	1	1	0	73	53	24.85	3000	8
520264	100577	05/24/71	C	10	70	PLYM	VALIA	14673	198	6	0	0	0	1	1	1	0	71	59	24.90	3000	8
520302	100584	05/26/71	C	10	70	PLYM	DUSTE	12115	198	6	3	0	0	1	1	1	0	70	64	25.00	3000	8
520317	100612	06/07/71	C	10	70	DODG	DART	14826	198	6	3	0	0	1	1	1	0	69	57	25.04	3000	8
520020	100544	05/14/71	C	11	70	DODG	DART	4755	225	6	0	0	0	1	1	1	0	71	60	24.90	3500	8
520022	100616	06/10/71	C	11	70	DODG	DART	4004	225	6	0	0	0	1	1	1	0	69	60	24.86	3500	8
520076	100291	03/30/71	C	11	70	DODG	CHALL	8151	225	6	3	0	0	1	1	1	0	75	53	24.65	3500	8
520110	100508	05/10/71	C	11	70	PLYM	DUSTE	4441	225	6	0	0	0	1	1	1	0	72	62	25.00	3500	8
520206	100510	05/10/71	C	11	70	DODG	DART	8241	225	6	0	0	0	1	1	1	0	72	62	25.00	3500	8
520210	100545	05/14/71	C	11	70	PLYM	DUSTE	10117	225	6	0	0	0	1	1	1	0	71	60	24.90	3500	8
520216	100526	05/12/71	C	11	70	PLYM	DUSTE	10257	225	6	0	0	0	1	1	1	0	70	60	25.15	3500	8
520245	100495	05/06/71	C	11	70	PLYM	VALIA	13362	225	6	3	1	0	1	1	1	0	72	60	24.85	3500	8
520259	100469	05/03/71	C	11	70	PLYM	DUSTE	5384	225	6	0	0	0	1	1	1	0	72	62	25.00	3500	8
520262	100536	05/13/71	C	11	70	PLYM	VALIA	4318	225	6	0	0	0	1	1	1	0	72	60	25.00	3500	8
520276	100509	05/10/71	C	11	70	PLYM	DUSTE	10699	225	6	0	0	0	1	1	1	0	72	62	25.00	3500	8
520300	100587	05/26/71	C	11	70	DODG	DART	12337	225	6	0	0	0	1	1	1	0	70	64	25.00	3500	8
520301	100590	05/27/71	C	11	70	DODG	DART	8424	225	6	0	1	0	1	1	1	0	73	63	25.00	3500	8
520016	100130	03/05/71	C	12	70	PLYM	DUSTE	5543	318	8	0	0	0	2	1	1	0	72	52	24.65	3500	9
520017	100534	05/13/71	C	12	70	PLYM	SATEL	5485	318	8	0	1	0	2	1	1	0	70	58	25.00	3500	9
520066	100044	02/16/71	C	12	70	PLYM	DUSTE	9837	318	8	0	0	0	2	1	1	0	72	54	24.84	3500	9
520082	100535	05/13/71	C	12	70	DODG	POLAR	7513	318	8	0	1	0	2	1	1	0	70	58	25.00	4500	9
520098	100547	05/17/71	C	12	70	DODG	DART	11075	318	8	0	1	0	2	1	1	0	68	51	24.83	3500	9
520100	100429	04/27/71	C	12	70	DODG	LDTRU	14028	318	8	3	0	0	2	1	1	0	70	53	24.70	4000	9
520104	100220	03/19/71	C	12	70	DODG	DART	10940	318	8	0	1	0	2	1	1	0	75	55	25.10	3500	9
520114	100468	05/03/71	C	12	70	PLYM	DUSTE	4945	318	8	0	1	0	2	1	1	0	72	62	25.00	3500	9
520118	100049	02/17/71	C	12	70	PLYM	VALIA	14127	318	8	0	0	0	2	1	1	0	72	54	24.85	3500	9
520126	100065	02/19/71	C	12	70	DODG	DART	4367	318	8	0	1	0	2	1	1	0	73	53	24.76	3500	9
520140	100528	05/12/71	C	12	70	PLYM	BELVE	5565	318	8	0	0	0	2	1	1	1	70	60	25.15	3500	9
520157	100478	05/04/71	C	12	70	PLYM	SATEL	8066	318	8	0	1	0	2	1	1	0	70	60	24.80	3500	9
520161	100540	05/14/71	C	12	70	PLYM	BARRA	6441	318	8	0	0	0	2	1	1	0	71	60	24.90	3500	9

1970 VEHICLES

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DR	WB	AXRM	INRT	HP
520204	100438	04/29/71	C12	70	PLYM	DUSTE	9940	318	8	0	0	0	2	1	1	0	70	54	24.77	3500	9
520248	100470	05/03/71	C12	70	PLY.	DUSTE	6164	318	8	0	0	0	2	1	1	0	72	62	25.00	3500	9
520252	100505	05/10/71	C12	70	PLYM	FURY	7011	318	8	0	0	0	2	1	1	0	72	62	25.00	3500	9
520258	100386	04/21/71	C12	70	PLYM	FURY	14950	318	8	0	1	0	2	1	1	0	72	62	25.00	4500	9
520267	100527	05/12/71	C12	70	PLYM	BARRA	9820	319	8	0	0	0	2	1	1	0	72	52	24.56	4500	9
520272	100551	05/17/71	C12	70	PLYM	FURY	14610	318	8	0	1	0	2	1	1	0	70	60	25.15	3500	9
520360	100696	08/25/71	C12	70	PLYM	VALIA	13887	318	8	0	0	0	2	1	1	0	67	50	24.81	4500	9
520004	100131	03/05/71	C13	70	CHRY	NEWPO	6786	383	8	0	1	0	2	1	1	0	80	63	25.07	3500	9
520091	100025	02/10/71	C13	70	PLYM	FURY	11227	383	8	0	1	0	2	1	1	0	72	52	24.65	4500	11
520132	100161	03/11/71	C13	70	DODG	D-100	10858	383	8	0	0	0	2	1	1	0	73	53	25.00	4500	11
520191	100292	03/30/71	C13	70	PLYM	SATEL	8610	383	8	0	1	0	2	1	1	0	76	56	24.78	4500	11
520190	100257	03/25/71	C13	70	DODG	CHALL	8758	383	8	0	0	0	2	1	1	0	75	53	24.65	4000	9
520218	100471	05/03/71	C13	70	PLYM	FURY	6753	383	8	0	0	0	2	1	1	0	77	56	24.80	4000	9
520250	100419	04/26/71	C13	70	PLYM	BARRA	9040	383	8	0	0	0	2	1	1	0	72	62	25.00	4500	11
520255	100500	05/07/71	C13	70	PLYM	FURY	9370	383	8	0	0	0	2	1	1	0	72	54	24.70	4000	9
520285	100546	05/17/71	C13	70	CHRY	NEWPO	14984	383	8	0	1	0	2	1	1	0	72	62	25.05	4500	11
520307	100597	05/28/71	C13	70	PLYM	FURY	8802	383	8	0	1	0	2	1	1	0	68	51	24.83	4500	11
520002	100045	02/16/71	C14	70	CHRY	300	8382	440	8	0	1	0	4	1	1	0	71	63	24.90	4500	11
520003	100103	03/02/71	C14	70	CHRY	IMPER	9328	440	8	0	1	0	4	1	1	0	72	54	24.85	5000	11
520071	100015	02/05/71	C14	70	CHRY	NEWYO	6393	440	8	0	1	0	4	1	1	0	73	52	25.15	5000	11
520265	100570	05/21/71	C14	70	CHRY	300	7752	440	8	0	1	0	4	1	1	0	72	55	24.84	5000	11
520141	100272	03/26/71	C15	70	DODG	DART	5764	340	8	0	0	0	4	1	1	0	70	59	24.80	5000	11
520329	100632	06/21/71	C15	70	DODG	DART	14920	340	8	4	0	0	4	1	1	0	75	55	24.65	3500	8
520125	100530	05/13/71	C18	70	CHRY	NEWPO	11301	383	8	0	1	0	4	1	1	0	80	60	25.10	3500	8
520183	100433	04/28/71	C18	70	CHRY	NEWPO	6201	383	8	0	1	0	4	1	1	0	70	58	25.00	4500	11
520188	100250	03/24/71	C18	70	PLYM	ROADR	8348	383	8	0	0	0	4	1	1	0	70	54	24.70	4500	11
520214	100475	05/03/71	C18	70	DODG	CHALL	8864	383	8	0	0	0	4	1	1	0	77	56	24.75	4000	9
520263	100481	05/04/71	C18	70	DODG	CHALL	6376	383	8	0	1	0	4	1	1	0	72	62	24.90	4000	9
520320	100624	06/16/71	C20	70	DODG	CHARG	7147	440	8	4	0	0	4	1	1	0	70	60	24.80	4000	9
520325	100621	06/15/71	C20	70	DODG	CHARG	13395	440	8	4	0	0	6	1	1	0	75	57	25.00	4000	9
520005	100232	03/23/71	F30	70	FORD	MAVER	10043	170	6	3	0	0	1	1	1	0	73	53	24.98	2750	4
520260	100506	05/10/71	F30	70	FORD	MAVER	12813	170	6	0	0	0	1	1	1	0	72	62	25.00	2750	4
520270	100474	05/03/71	F30	70	FORD	MAVER	5292	170	6	3	0	0	1	1	1	0	72	62	24.70	2750	4
520299	100588	05/27/71	F30	70	FORD	MAVER	9428	170	6	3	0	0	1	1	1	0	73	63	25.00	2750	4
520305	100589	05/27/71	F30	70	FORD	MAVER	10013	170	6	3	0	0	1	1	1	0	73	63	25.00	2750	4
520018	100261	03/25/71	F32	70	FORD	MAVER	8844	200	6	0	0	0	1	1	1	0	77	56	24.80	2750	4
520083	100155	03/10/71	F32	70	FORD	MAVER	8272	200	6	0	0	0	1	1	1	0	75	55	24.80	2750	4
520101	100139	03/08/71	F32	70	FORD	MAVER	10641	200	6	0	0	0	1	1	1	0	72	52	24.82	2750	4
520107	100067	02/19/71	F32	70	FORD	MAVER	11606	200	6	3	0	0	1	1	1	0	73	54	24.75	2750	4
520174	100218	03/19/71	F32	70	FORD	MAVER	11637	200	6	0	0	0	1	1	1	0	75	55	25.10	2750	4
520240	100504	05/10/71	F32	70	FORD	MAVER	5850	200	6	3	0	0	1	1	1	0	72	62	25.00	2750	4
520256	100388	04/21/71	F32	70	FORD	MAVER	14337	200	6	0	0	0	1	1	1	0	72	52	24.56	2750	4
520266	100507	05/10/71	F32	70	FORD	MAVER	6330	200	6	0	0	0	1	1	1	0	72	62	25.00	2750	4
520019	100056	02/18/71	F33	70	FORD	TOPIN	12794	302	8	0	0	0	2	1	1	0	71	53	24.75	3500	8
520021	100138	03/08/71	F33	70	FORD	F-100	5321	302	8	0	0	0	2	1	1	0	72	52	24.80	4000	8
520044	100501	05/07/71	F33	70	MERC	MONTG	13239	302	8	0	1	0	2	1	1	0	72	62	25.05	3500	8
520112	100572	05/24/71	F33	70	MERC	MONTG	6995	302	8	0	1	0	2	1	1	0	71	59	24.90	3500	8
520166	100176	03/15/71	F33	70	FORD	MUSTA	8565	302	8	0	0	0	2	1	1	0	76	55	24.90	3500	8
520175	100271	03/26/71	F33	70	FORD	FAIRL	8612	302	8	0	0	0	2	1	1	0	75	55	24.65	3500	8
520176	100493	05/06/71	F33	70	FORD	MUSTA	11819	302	8	4	0	0	2	1	1	0	72	60	24.85	3500	8

1970 VEHICLES

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BPL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DR	WH	BAROM	INRT	HP
520177	100228	03/22/71	F33	70	FORD	TORIN	13167	302	8	0	1	0	2	1	1	0	77	57	25.00	3500	8
520221	100334	04/13/71	F33	70	MERC	MONTG	9759	302	8	0	0	0	2	1	1	0	73	53	25.22	3500	8
520227	100491	05/06/71	F33	70	MERC	COUGA	8607	302	8	0	0	0	2	1	1	0	72	60	24.85	3500	8
520229	100273	03/30/71	F33	70	FORD	FAIRL	6834	302	8	0	0	0	2	1	1	0	75	53	24.65	3500	8
520241	100442	04/28/71	F33	70	FORD	LDTRU	12710	302	8	4	0	0	2	1	1	0	72	54	24.70	4000	8
520253	100549	05/17/71	F33	70	FORD	MUSTA	9921	302	8	0	0	0	2	1	1	0	68	51	24.83	3500	8
520289	100606	06/04/71	F33	70	FORD	MUSTA	8411	302	8	0	0	0	2	1	1	0	70	60	24.89	3500	8
520311	100593	06/01/71	F33	70	FORD	FAIRL	4945	302	8	0	0	0	2	1	1	0	72	66	24.98	3500	8
520051	100050	02/17/71	F34	70	MERC	CYCLO	13077	351	8	0	0	0	2	1	1	0	72	54	24.85	4000	9
520057	100009	02/04/71	F34	70	FORD	FAIRL	10869	351	8	0	0	0	2	1	1	0	72	53	24.72	4000	9
520061	100100	03/01/71	F34	70	MERC	COUGA	9834	351	8	0	1	0	2	1	1	0	73	53	24.80	3500	9
520074	100021	02/09/71	F34	70	MERC	COUGA	9271	351	8	0	1	0	2	1	1	0	76	54	25.06	3500	9
520124	100061	02/18/71	F34	70	MERC	MONTG	8603	351	8	0	1	0	2	1	1	0	71	52	24.68	4000	9
520167	100485	05/05/71	F34	70	FORD	FAIRL	8950	351	8	0	1	0	2	1	1	0	72	51	24.60	4000	9
520189	100280	03/29/71	F34	70	FORD	FAIRL	8509	351	8	0	0	0	2	1	1	0	77	53	25.10	4000	9
520198	100477	05/04/71	F34	70	MERC	MONTG	6575	351	8	0	1	0	2	1	1	0	70	60	24.80	4000	9
520203	100487	05/05/71	F34	70	MERC	COUGA	7286	351	8	0	1	0	2	1	1	0	72	51	24.60	3500	9
520207	100566	05/21/71	F34	70	FORD	TORIN	5336	351	8	0	0	0	2	1	1	0	71	53	24.80	4000	9
520226	100476	05/04/71	F34	70	MERC	COUGA	9031	351	8	0	1	0	2	1	1	0	70	60	24.80	3500	9
520233	100503	05/07/71	F34	70	MERC	COUGA	6712	351	8	0	1	0	2	1	1	0	72	62	25.05	3500	9
520235	100629	06/18/71	F34	70	MERC	COUGA	5167	351	8	0	1	0	2	1	1	0	72	52	29.83	3500	9
520251	100489	05/06/71	F34	70	MERC	COUGA	8362	351	8	0	1	0	2	1	1	0	72	60	24.85	3500	9
520254	100455	04/29/71	F34	70	FORD	MUSTA	10636	351	8	0	0	0	2	1	1	0	72	60	24.80	3500	9
520318	100622	06/15/71	F34	70	FORD	LTD	6395	351	8	0	1	0	2	1	1	0	70	60	25.02	4000	9
520355	100708	08/27/71	F34	70	FORD	MUSTA	11471	351	8	0	1	0	2	1	1	0	88	67	25.02	3500	9
520372	100791	11/01/71	F34	70	FORD	MUSTA	27738	351	8	4	0	0	2		1	0	68	53	24.80	3500	9
520058	100209	03/18/71	F35	70	MERC	MONTR	14708	390	8	0	1	0	2	1	1	0	77	56	25.09	4500	11
520086	100231	03/22/71	F35	70	FORD	LTD	9976	390	8	0	1	0	2	1	1	0	77	57	25.00	4500	11
520095	100532	05/13/71	F35	70	FORD	GALAX	5946	390	8	0	1	0	2	1	1	0	70	58	25.00	4500	11
520146	100101	03/01/71	F35	70	FORD	LTD	13164	390	8	0	1	0	2	1	1	0	73	53	24.82	4500	11
520168	100413	04/26/71	F35	70	FORD	LTD	8823	390	8	0	1	0	2	1	1	0	72	54	24.75	4500	11
520171	100188	03/16/71	F35	70	FORD	F-100	9011	390	8	0	0	0	2	1	1	0	76	56	25.05	4000	9
520178	100262	03/25/71	F35	70	FORD	GALAX	10836	390	8	0	1	0	2	1	1	0	77	56	24.80	4500	11
520193	100770	03/26/71	F35	70	FORD	LTD	6170	390	8	0	1	0	2	1	1	0	75	55	24.65	4500	11
520222	100497	05/07/71	F36	70	MERC	MARQU	5965	429	8	0	1	0	4	1	1	0	72	62	25.05	4500	11
520223	100472	05/03/71	F36	70	MERC	MARQU	8654	429	8	0	1	0	4	1	1	0	72	62	24.90	4500	11
520353	100684	09/21/71	F36	70	FORD	THUNC	10836	429	8	0	1	0	4	1	1	0	78	67	24.95	5000	11
520366	100697	08/25/71	F36	70	FORD	THUND	10754	429	8	0	1	0	4	1	1	0	87	64	25.04	5000	11
520249	100466	05/03/71	F37	70	FORD	ECONC	6851	240	6	3	0	0	1	1	1	0	72	62	25.00	4000	8
520335	100659	07/07/71	F37	70	FORD	ECONO	13472	240	6	3	0	0	1	1	1	0	76	57	25.50	4000	8
520337	100635	06/23/71	F37	70	FORD	ECONC	14594	240	6	0	0	0	1	1	1	0	76	58	25.00	4000	8
520010	100006	02/02/71	F38	70	FORD	MAVER	14102	250	6	0	0	0	1	1	1	0	75	57	24.73	3000	8
520070	100081	02/24/71	F38	70	MERC	MONTG	10226	250	6	0	0	0	1	1	1	0	73	53	24.70	3500	8
520113	100047	02/16/71	F39	70	FORD	MAVER	4643	250	6	0	0	0	1	1	1	0	72	55	24.86	3000	8
520224	100524	05/12/71	F38	70	FORD	MAVER	7324	250	6	0	1	0	1	1	1	0	70	60	25.15	3000	8
520234	100477	05/04/71	F40	70	MERC	COUGA	7528	351	8	0	1	0	4	1	1	0	70	60	24.80	3500	9
520332	100637	06/23/71	F40	70	FORD	TORIN	14247	351	8	0	0	0	4	1	1	0	73	59	25.00	4000	9
520109	100416	04/26/71	F41	70	FORD	LDTRU	6611	360	8	4	0	0	2	1	1	0	72	54	24.70	4000	8
520147	100490	05/06/71	F41	70	FORD	LDTRU	8489	360	8	0	1	0	2	1	1	0	72	60	24.85	4000	8
520212	100519	05/11/71	F41	70	FORD	LDTRU	5954	360	8	0	1	0	2	1	1	0	71	61	25.25	4000	8

1970 VEHICLES

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DR	WB	BA/CM	INRT	HP
520336	100633	06/22/71	F41	70	FORD	LDTRU	10914	360	8	4	0	0	2	1	1	0	80	54	25.04	4000	8
520354	100676	07/13/71	F44	70	FORD	MUSTA	10559	428	8	0	0	0	4	1	1	0	79	72	25.10	4000	8
520220	100562	05/20/71	F45	70	MERC	MARQU	14392	429	8	0	1	0	2	1	1	0	70	60	24.95	4500	11
520268	100543	05/14/71	F45	70	FORD	LTD	4435	429	8	0	1	0	2	1	1	0	71	60	24.90	4500	11
520269	100497	05/07/71	F45	70	FORD	LTD	7564	429	8	0	1	0	2	1	1	0	72	62	25.05	4500	11
520271	100573	05/24/71	F45	70	FORD	LTD	4611	429	8	0	1	0	2	1	1	0	71	59	24.90	4500	11
520326	100620	06/15/71	F46	70	FORD	CYCLO	12905	429	8	4	0	0	4	1	2	0	69	59	25.02	4000	9
520356	100679	05/20/71	F46	70	FORD	MUSTA	14816	429	8	4	0	0	4	1	2	0	75	67	25.10	4000	9
520368	100709	08/27/71	F46	70	FORD	TORIN	12820	429	8	0	1	0	4	1	2	0	86	66	25.04	4000	9
520209	100486	05/05/71	F47	70	LINC	CONTI	5217	460	8	0	1	0	4	1	2	0	72	51	24.60	5500	11
520225	100283	03/30/71	F47	70	LINC	MKIII	11369	460	8	0	1	0	4	1	2	0	73	53	24.88	5500	11
520037	100005	02/02/71	G51	70	CHEV	NOVA	7547	230	6	0	0	0	1	1	1	0	74	55	24.79	3500	8
520293	100561	05/20/71	G51	70	CHEV	NOVA	8660	230	6	3	0	0	1	1	1	0	70	60	24.95	3500	8
520338	100644	06/25/71	G51	70	CHEV	NOVA	9682	230	6	0	0	0	1	1	1	0	85	66	24.95	3500	8
520337	100645	06/25/71	G51	70	CHEV	NOVA	13707	230	6	0	0	0	1	1	1	0	85	66	24.95	3500	8
520373	100802	11/23/71	G51	70	CHEV	NOVA	50488	230	6	3	0	0	1	1	1	0	70	55	25.00	3500	8
520031	100197	03/16/71	G52	70	CHEV	NOVA	8876	250	6	0	0	0	1	1	1	0	77	56	25.05	3500	8
520063	100576	05/24/71	G52	70	CHEV	NOVA	10351	250	6	3	0	0	1	1	1	0	71	59	24.90	3500	8
520069	100022	02/09/71	G52	70	CHEV	CAMAR	10475	250	6	3	0	0	1	1	1	0	76	54	25.06	3500	8
520073	100018	02/08/71	G52	70	CHEV	LDTRU	12814	250	6	3	0	0	1	1	1	0	73	55	25.04	4000	8
520075	100518	05/11/71	G52	70	CHEV	CAMAR	9635	250	6	3	0	0	1	1	1	0	71	51	25.25	3500	8
520087	100078	02/24/71	G52	70	CHEV	NOVA	14410	250	6	0	0	0	1	1	1	0	73	54	24.76	3500	8
520090	100525	05/12/71	G52	70	CHEV	NOVA	5774	250	6	3	0	0	1	1	1	0	70	60	25.15	3500	8
520105	100210	03/18/71	G52	70	CHEV	NOVA	7038	250	6	3	0	0	1	1	1	0	77	56	25.00	3500	8
520154	100108	03/02/71	G52	70	CHEV	BELAI	12551	250	6	0	0	0	1	1	1	0	73	52	25.18	4000	8
520164	100569	05/21/71	G52	70	CHEV	NOVA	7605	250	6	3	1	0	1	1	1	0	71	59	24.80	3500	8
520165	100482	05/04/71	G52	70	PONT	FIREB	5756	250	6	0	0	0	1	1	1	0	70	60	24.80	3500	8
520201	100303	03/31/71	G52	70	CHEV	CAMAR	8894	250	6	3	0	0	1	1	1	0	75	50	24.50	3500	8
520231	100607	06/04/71	G52	70	CHEV	NOVA	4006	250	6	3	0	0	1	1	1	0	70	60	24.89	3500	8
520247	100464	04/30/71	G52	70	CHEV	NOVA	12233	250	6	0	0	0	1	1	1	0	71	57	25.10	3500	8
520274	100537	05/13/71	G52	70	CHEV	CAMAR	14983	250	6	3	0	0	1	1	1	0	72	60	24.90	3500	8
520292	100604	06/03/71	G52	70	CHEV	NOVA	11980	250	6	0	1	0	1	1	1	0	72	60	24.90	3500	8
520322	100625	06/16/71	G52	70	CHEV	NOVA	8234	250	6	0	0	0	1	1	1	0	75	57	25.00	3500	8
520324	100619	06/14/71	G52	70	CHEV	CHEVE	9208	250	6	0	0	0	1	1	1	0	70	60	25.00	3500	8
520327	100618	06/14/71	G52	70	CHEV	NOVA	9334	250	6	0	0	0	1	1	1	0	70	60	25.00	3500	8
520343	100654	07/01/71	G52	70	CHEV	NOVA	7283	250	6	0	0	0	1	1	1	0	70	60	25.15	3500	8
520027	100208	03/18/71	G53	70	CHEV	NOVA	8265	307	8	3	0	0	2	1	1	0	77	56	25.10	3500	8
520035	100729	03/22/71	G53	70	CHEV	NOVA	5166	307	8	0	1	0	2	1	1	0	77	57	25.00	3500	8
520036	100116	03/03/71	G53	70	CHEV	NOVA	9684	307	8	3	0	0	2	1	1	0	73	53	24.88	3500	8
520078	100043	02/16/71	G53	70	CHEV	MALIB	11943	307	8	0	0	0	2	1	1	0	73	54	24.80	3500	8
520081	100033	02/11/71	G53	70	CHEV	CHEVE	12618	307	8	0	0	0	2	1	1	0	72	54	25.06	3500	8
520134	100102	03/01/71	G53	70	CHEV	NOVA	9376	307	8	0	0	0	2	1	1	0	73	53	24.82	3500	8
520149	100179	03/15/71	G53	70	CHEV	NOVA	8183	307	8	0	0	0	2	1	1	0	76	55	24.95	3500	8
520197	100454	04/29/71	G53	70	CHEV	CAMAR	4485	307	8	0	0	0	2	1	1	0	72	60	24.80	3500	8
520199	100230	03/22/71	G53	70	CHEV	CAMAR	14881	307	8	3	0	0	2	1	1	0	77	57	25.00	3500	8
520219	100480	05/04/71	G53	70	CHEV	NOVA	4700	307	8	0	0	0	2	1	1	0	70	60	24.80	3500	8
520242	100559	05/19/71	G53	70	CHEV	NOVA	4113	307	8	0	1	0	2	1	1	0	70	56	24.94	3500	8
520284	100702	08/26/71	G53	70	CHEV	MALIB	12894	307	8	3	0	0	2	1	1	0	80	64	25.03	3500	8
520294	100578	05/25/71	G53	70	CHEV	CAMAR	6578	307	8	0	1	0	2	1	1	0	70	62	24.90	3500	8
520295	100568	05/21/71	G53	70	CHEV	CAMAR	11377	307	8	0	0	0	2	1	1	0	71	59	24.80	3500	8

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DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DR	WR	BAROM	INRT	HP
520344	100653	07/01/71	G53	70	CHEV	CAMAR	14705	307	8	0	1	0	2	1	1	0	70	60	25.15	3500	8
520346	100657	07/06/71	G53	70	CHEV	LDTRU	14720	307	8	4	0	0	2	1	2	0	77	51	24.96	4000	8
520350	100669	07/09/71	G53	70	CHEV	CAMAR	4111	307	8	3	0	0	2	1	1	0	84	62	25.05	3500	8
520007	100235	03/23/71	G55	70	CHEV	LDTRU	10505	350	8	0	0	0	4	1	1	0	75	55	24.95	4500	9
520012	100125	03/04/71	G55	70	CHEV	IMPAL	11462	350	8	0	1	0	4	1	1	0	73	53	24.62	4500	11
520013	100064	02/19/71	G55	70	CHEV	IMPAL	8064	350	8	0	1	0	4	1	1	0	73	53	24.78	4500	11
520033	100498	05/07/71	G55	70	CHEV	CHEVR	6591	350	8	0	1	0	4	1	1	0	72	62	25.05	4500	11
520056	100281	03/29/71	G55	70	CHEV	CAPRI	6790	350	8	0	1	0	4	1	1	0	77	53	25.10	4500	11
520072	100103	03/01/71	G55	70	CHEV	IMPAL	11390	350	8	0	1	0	4	1	1	0	73	52	24.82	4500	11
520089	100237	03/23/71	G55	70	CHEV	MONTE	10032	350	8	0	1	0	4	1	1	0	76	56	24.95	4000	9
520131	100555	05/18/71	G55	70	CHEV	IMPAL	4730	350	8	0	1	0	4	1	1	0	70	54	24.98	4500	11
520145	100111	03/02/71	G55	70	CHEV	LDTRU	9309	350	8	0	0	0	4	1	1	0	73	53	25.10	4500	9
520172	100335	04/13/71	G55	70	CHEV	CHEVT	9231	350	8	0	0	0	4	1	1	0	73	53	25.25	4500	9
520192	100249	03/24/71	G55	70	CHEV	CORVE	6628	350	8	4	1	0	4	1	1	0	77	56	24.75	3500	9
520200	100444	04/28/71	G55	70	CHEV	LDTRU	10834	350	8	4	0	0	4	1	1	0	72	54	24.70	4500	9
520208	100290	03/30/71	G55	70	CHEV	IMPAL	7004	350	8	0	0	0	4	1	1	0	75	53	24.70	4500	11
520217	100411	04/23/71	G55	70	CHEV	CHEVT	12757	350	8	0	0	0	4	1	1	1	72	56	24.90	4500	9
520261	100593	05/28/71	G55	70	CHEV	LDTRU	10061	350	8	4	0	0	4	1	1	0	71	63	24.90	4500	9
520349	100704	08/26/71	G56	70	CHEV	LDTRU	32987	292	6	4	0	0	1	1	1	0	85	65	25.01	4000	8
520006	100010	02/04/71	G57	70	CHEV	CHEVE	14834	350	8	0	1	0	2	1	1	0	73	53	24.79	4000	9
520029	100177	03/15/71	G57	70	CHEV	MONTE	6946	350	8	0	1	0	2	1	1	0	76	55	24.90	4000	9
520030	100126	03/04/71	G57	70	CHEV	MALIB	8536	350	8	0	1	0	2	1	1	0	73	53	24.62	4000	9
520034	100266	03/26/71	G57	70	CHEV	CHEVE	5400	350	8	0	1	0	2	1	1	0	74	54	24.80	4000	9
520060	100512	05/11/71	G57	70	CHEV	CHEVE	12042	350	8	0	1	0	2	1	1	0	71	61	25.25	4000	9
520065	100071	02/23/71	G57	70	CHEV	IMPAL	9303	350	8	0	1	0	2	1	1	0	72	52	24.89	4500	11
520077	100055	02/17/71	G57	70	CHEV	IMPAL	12387	350	8	0	0	0	2	1	1	0	72	54	24.76	4500	11
520093	100117	03/03/71	G57	70	CHEV	CAMAR	8320	350	8	0	0	0	2	1	1	0	73	53	24.85	3500	9
520102	100058	02/18/71	G57	70	CHEV	BELAI	11721	350	8	0	1	0	2	1	1	0	72	54	24.67	4500	11
520108	100137	03/08/71	G57	70	CHEV	MALIB	9135	350	8	0	1	0	2	1	1	0	72	52	24.80	4000	9
520111	100062	02/19/71	G57	70	CHEV	CHEVE	13993	350	8	0	1	0	2	1	1	0	74	53	24.77	4000	9
520122	100060	02/18/71	G57	70	CHEV	IMPAL	14238	350	8	0	1	0	2	1	1	0	72	53	24.68	4500	11
520123	100059	02/18/71	G57	70	CHEV	IMPAL	12535	350	8	0	1	0	2	1	1	0	72	53	24.66	4500	11
520148	100153	03/10/71	G57	70	CHEV	MALIB	9145	350	8	0	0	0	2	1	1	0	75	55	24.78	4000	9
520179	100219	03/19/71	G57	70	CHEV	IMPAL	13427	350	8	0	1	0	2	1	1	0	75	55	25.10	4500	11
520202	100486	05/05/71	G57	70	CHEV	BELAI	7596	350	8	0	1	0	2	1	1	0	72	51	24.60	4500	11
520205	100484	05/05/71	G57	70	CHEV	IMPAL	8709	350	8	0	0	0	2	1	1	0	72	51	24.60	4500	11
520244	100515	05/11/71	G57	70	CHEV	NOVA	9650	350	8	0	1	0	2	1	1	0	71	61	25.25	3500	8
520290	100553	05/17/71	G57	70	CHEV	IMPAL	8736	350	8	0	1	0	2	1	1	0	67	50	24.81	4500	11
520296	100571	05/21/71	G57	70	CHEV	IMPAL	11285	350	8	0	1	0	2	1	1	0	71	52	24.80	4500	11
520352	100674	07/12/71	G57	70	CHEV	CAPRI	9217	350	8	3	1	0	2	1	1	0	79	70	25.05	4500	11
520093	100086	02/25/71	G59	70	CHEV	IMPAL	10610	400	8	0	1	0	2	1	1	0	72	54	24.45	4500	11
520094	100066	02/13/71	G59	70	CHEV	IMPAL	9830	400	8	0	1	0	2	1	1	0	72	53	24.75	4500	11
520115	100554	05/18/71	G59	70	CHEV	CAPRI	4629	400	8	0	1	0	2	1	1	0	70	54	24.88	4500	11
520187	100333	04/13/71	G59	70	CHEV	IMPAL	10243	400	8	0	1	0	2	1	1	0	72	52	25.28	4500	11
520257	100592	05/27/71	G59	70	CHEV	IMPAL	9703	400	8	0	1	0	2	1	1	0	73	63	25.00	4500	11
520271	100443	04/28/71	G59	70	CHEV	CHEVR	11037	400	8	0	1	0	2	1	1	0	72	54	24.70	4500	11
520288	100552	05/17/71	G59	70	CHEV	IMPAL	14465	400	8	0	1	0	2	1	1	0	67	51	24.81	4500	11
520306	100598	05/28/71	G59	70	CHEV	CHEVR	9746	400	8	0	1	0	2	1	1	0	71	63	24.90	4500	11
520316	100611	06/07/71	G60	70	CHEV	MONTE	14903	402	8	0	1	0	4	1	1	0	69	59	25.04	4000	8
520340	100650	06/23/71	G60	70	CHEV	MALIB	7707	402	8	4	0	0	4	1	1	0	75	61	24.96	4000	8

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DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	INDEX	CID	CYL	TRN	A/C	PSD	BRL	PCV	COLD START EXH	COLD START EVP	VEHICLE INFORMATION DB	WB	BAROM	INRT	HP
520351	100675	07/13/71	G60	70	CHEV	LDTRU	14260	402	8	4	0	0	4	1	1	0	79	72	25.10	4500	10
520357	100701	08/26/71	G65	70	CHEV	CHEVE	10263	454	8	4	0	0	4	1	2	0	89	64	25.03	4000	9
520040	100420	04/26/71	G61	70	PONT	CATAL	6504	350	8	0	1	0	2	1	1	0	72	54	24.70	4500	11
520041	100278	03/29/71	G61	70	PONT	LEMAN	12102	350	8	0	0	0	2	1	1	0	77	53	25.10	4000	9
520037	100154	03/10/71	G61	70	PONT	LEMAN	8326	350	8	0	1	0	2	1	1	1	75	55	24.80	4000	9
520144	100581	05/25/71	G61	70	PONT	LEMAN	9833	350	8	0	1	0	2	1	1	0	70	62	24.90	4000	9
520152	100089	02/26/71	G61	70	PONT	LEMAN	11887	350	8	4	0	0	2	1	1	0	74	55	24.66	4000	9
520156	100513	05/11/71	G61	70	PONT	FIREB	4989	350	8	0	0	0	2	1	1	0	71	61	25.25	4000	9
520170	100241	03/23/71	G61	70	PONT	LEMAN	14680	350	8	0	1	0	2	1	1	0	76	56	24.95	4000	9
520180	100282	03/29/71	G61	70	PONT	FIREB	13984	350	8	0	1	0	2	1	1	0	77	53	25.10	4000	9
520230	100575	05/24/71	G61	70	PONT	LEMAN	9584	350	8	0	0	0	2	1	1	0	71	59	24.90	4000	9
520286	100565	05/20/71	G61	70	PONT	TEMPE	6827	350	8	0	0	0	2	1	1	0	70	60	24.90	4000	9
520155	100567	05/21/71	G62	70	PONT	CATAL	13504	400	8	0	1	0	2	1	1	0	71	59	24.80	4500	11
520163	100541	05/14/71	G62	70	PONT	CATAL	8200	400	8	0	1	0	2	1	1	0	71	60	24.90	4500	11
520213	100301	03/31/71	G62	70	PONT	CATAL	14864	400	8	0	1	0	2	1	1	0	75	49	24.50	4500	11
520236	100560	05/20/71	G62	70	PONT	CATAL	4426	400	8	0	1	0	2	1	1	0	70	60	24.95	4500	11
520277	100517	05/11/71	G62	70	PONT	CATAL	7541	400	8	0	1	0	2	1	1	0	71	61	25.25	4500	11
520282	100520	05/11/71	G62	70	PONT	CATAL	9176	400	8	0	1	0	2	1	1	0	71	61	25.25	4500	11
520055	100011	02/05/71	G68	70	PONT	TEMPE	12080	400	8	4	0	0	4	1	1	0	73	54	24.74	4000	9
520136	100162	03/11/71	G68	70	PONT	GTO	8429	400	8	0	1	0	4	1	1	0	75	55	24.78	4000	9
520143	100494	05/06/71	G68	70	PONT	GRAND	7005	400	8	0	1	0	4	1	1	0	72	60	24.95	4500	11
520153	100092	02/26/71	G68	70	PONT	GTO	13194	400	8	4	0	0	4	1	1	0	74	55	24.69	4000	9
520182	100539	05/14/71	G68	70	PONT	CATAL	11369	400	8	0	1	0	4	1	1	0	71	60	24.90	4500	11
520228	100608	06/04/71	G68	70	PONT	FIREB	13478	400	8	4	0	0	4	1	1	0	70	60	24.89	4000	9
520298	100582	05/25/71	G68	70	PONT	EXECU	6960	400	8	0	1	0	4	1	1	0	70	62	24.90	4500	11
520137	100120	03/04/71	G70	70	PONT	BONNE	11170	455	8	0	1	0	4	1	1	0	72	54	24.74	5000	11
520138	100558	05/19/71	G70	70	PONT	BONNE	13214	455	8	0	1	0	4	1	1	0	70	56	24.94	5000	11
520158	100160	03/11/71	G70	70	PONT	BONNE	8262	455	8	0	1	0	4	1	1	0	76	56	24.78	5000	11
520169	100175	03/15/71	G70	70	PONT	GRAND	14156	455	8	0	0	0	4	1	1	0	75	55	24.90	4500	11
520064	100014	02/05/71	G66	70	OLDS	CUTLA	14852	350	8	0	1	0	2	1	1	0	72	56	24.84	4000	9
520133	100127	03/04/71	G66	70	OLDS	CUTLA	10838	350	8	0	1	0	2	1	1	0	73	53	24.62	4000	9
520196	100677	07/13/71	G66	70	OLDS	CUTLA	9565	350	8	0	1	0	2	1	1	0	79	72	25.10	4000	9
520275	100502	05/07/71	G66	70	OLDS	CUTLA	14510	350	8	0	1	0	2	1	1	0	72	62	25.05	4000	9
520333	100664	07/08/71	G66	70	OLDS	CUTLA	14902	350	8	0	1	0	2	1	1	0	72	55	25.20	4000	9
520341	100663	07/07/71	G66	70	OLDS	CUTLA	10538	350	8	0	1	0	2	1	1	0	86	60	24.99	4000	9
520347	100667	07/09/71	G66	70	OLDS	CUTLA	4107	350	8	0	0	0	2	1	1	0	74	61	25.13	4000	9
520348	100665	07/08/71	G66	70	OLDS	CUTLA	7666	350	8	0	1	0	2	1	1	0	72	55	25.20	4000	9
520370	100775	10/06/71	G66	70	OLDS	CUTLA	55393	350	8	0	1	0	2	1	1	0	77	59	25.20	4000	9
520054	100016	02/06/71	G67	70	OLDS	NINET	9264	455	8	0	1	0	4	1	1	0	70	51	24.81	5000	11
520092	100106	03/02/71	G67	70	OLDS	NINET	11009	455	8	0	1	0	4	1	1	0	73	52	25.20	5000	11
520130	100096	03/01/71	G67	70	OLDS	NINET	10605	455	8	0	1	0	4	1	1	0	74	53	24.80	5000	11
520237	100318	04/02/71	G67	70	OLDS	TORON	7114	455	8	0	1	0	4	1	1	0	73	50	25.00	5000	11
520342	100651	06/30/71	G67	70	OLDS	OLDSM	13413	455	8	0	1	0	4	1	1	0	74	60	25.15	5000	11
520369	100706	08/27/71	G67	70	OLDS	NINET	10057	455	8	0	1	0	4	1	1	0	87	67	25.03	5000	11
520371	100773	10/05/71	G67	70	OLDS	OLDSM	22624	455	8	0	1	0	4	1	1	0	77	57	25.20	5000	11
520096	100302	03/31/71	G72	70	OLDS	CUTLA	6225	350	8	0	1	0	4	1	1	0	75	50	24.50	4000	9
520246	100421	04/26/71	G72	70	OLDS	CUTLA	12445	350	8	0	1	0	4	1	1	0	72	54	24.70	4000	9
520038	100020	02/04/71	G73	70	OLDS	EIGHT	13196	455	8	0	1	0	2	1	1	0	74	53	25.06	5000	11
520059	100199	03/17/71	G73	70	OLDS	DELTA	821	455	8	0	1	0	2	1	1	0	74	54	24.65	5000	11
520103	100178	03/15/71	G73	70	OLDS	DELTA	11753	455	8	0	1	0	2	1	1	0	76	55	24.90	5000	11

1970 VEHICLES — COLD START VEHICLE INFORMATION

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	PSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
520135	100583	05/26/71	G73	70	OLDS	DELTA	7327	455	8	0	1	0	2	1	1	0	70	64	25.00	5000	11
520025	100163	03/11/71	G71	70	BUIC	LESAB	8643	350	8	0	1	0	4	1	1	0	75	55	24.78	5000	11
520028	100019	02/09/71	G71	70	BUIC	BUICK	11075	350	8	0	1	0	4	1	1	0	72	53	25.05	5000	11
520106	100265	03/26/71	G71	70	BUIC	BUICK	9376	350	8	0	1	0	4	1	1	0	74	54	24.80	5000	11
520142	100085	02/25/71	G71	70	BUIC	SKYLA	10461	350	8	0	0	0	4	1	1	0	73	55	24.50	4000	9
520280	100548	05/17/71	G71	70	BUIC	ELECT	4542	350	8	0	1	0	4	1	1	0	68	51	24.83	5000	11
520023	100145	03/09/71	G74	70	BUIC	SKYLA	13253	350	8	0	1	0	2	1	1	0	75	55	24.86	4000	9
520024	100110	03/02/71	G74	70	BUIC	SKYLA	5612	350	8	0	1	0	2	1	1	0	73	53	25.14	4000	9
520159	100523	05/12/71	G74	70	BUIC	SKYLA	4767	350	8	0	1	0	2	1	1	0	70	60	25.15	4000	9
520279	100529	05/13/71	G74	70	BUIC	SKYLA	12673	350	8	0	0	0	2	1	1	0	70	58	25.00	4000	9
520334	100631	06/18/71	G74	70	BUIC	LESAB	7171	350	8	0	1	0	2	1	1	0	72	52	24.83	5000	11
520358	100695	08/25/71	G74	70	BUIC	SKYLA	13227	350	8	0	1	0	2	1	1	0	80	63	25.07	4000	9
520359	100698	08/25/71	G74	70	BUIC	SKYLA	19254	350	8	0	1	0	2	1	1	0	87	64	25.04	4000	9
520364	100705	08/27/71	G74	70	BUIC	SKYLA	22064	350	8	0	0	0	2	1	1	0	87	67	25.04	4000	9
520026	100542	05/14/71	G75	70	BUIC	ELECT	6035	455	8	0	1	0	4	1	1	0	71	60	24.90	5000	11
520052	100012	02/05/71	G75	70	BUIC	ELECT	7375	455	8	0	1	0	4	1	1	0	69	52	24.78	5000	11
520184	100248	03/24/71	G75	70	BUIC	LESAB	8646	455	8	0	1	0	4	1	1	0	77	56	24.70	5000	11
520194	100473	05/03/71	G75	70	BUIC	RIVIE	11383	455	8	0	1	0	4	1	1	0	72	62	24.90	5000	11
520195	100531	05/13/71	G75	70	BUIC	LESAB	7012	455	8	0	1	0	4	1	1	0	70	58	25.00	5000	11
520278	100522	05/12/71	G75	70	BUIC	RIVIE	9091	455	8	0	1	0	4	1	1	0	70	60	25.15	5000	11
520281	100516	05/11/71	G75	70	BUIC	LESAB	12175	455	8	0	1	0	4	1	1	0	71	61	25.25	5000	11
520283	100556	05/18/71	G75	70	BUIC	LESAB	14358	455	8	0	1	0	4	1	1	0	70	54	24.88	5000	11
520287	100550	05/17/71	G75	70	BUIC	ELECT	6257	455	8	0	1	0	4	1	1	0	67	50	24.81	5000	11
520297	100574	05/24/71	G75	70	BUIC	ELECT	10494	455	8	0	1	0	4	1	1	0	71	59	24.90	5000	11
520009	100001	01/23/71	G77	70	CADI	DEVIL	13629	472	8	0	1	0	4	1	1	0	76	54	25.04	5500	11
520009	100002	01/29/71	G77	70	CADI	DEVIL	11893	472	8	0	1	0	4	1	1	0	73	51	24.98	5500	11
520116	100046	02/16/71	G77	70	CADI	DEVIL	12679	472	8	0	1	0	4	1	1	0	73	54	24.86	5500	11
520117	100052	02/17/71	G77	70	CADI	DEVIL	10917	472	8	0	1	0	4	1	1	0	72	54	24.78	5500	11
520119	100054	02/17/71	G77	70	CADI	DEVIL	10833	472	8	0	1	0	4	1	1	0	72	54	24.76	5500	11
520120	100051	02/17/71	G77	70	CADI	DEVIL	11379	472	8	0	1	0	4	1	1	0	73	55	24.78	5500	11
520121	100053	02/17/71	G77	70	CADI	DEVIL	11431	472	8	0	1	0	4	1	1	0	73	55	24.76	5500	11
520239	100316	04/02/71	G78	70	CADI	ELDOR	14567	500	8	0	1	0	4	1	1	0	75	50	25.05	5000	11
520050	100013	02/[illegible]/71	V82	70	VOLK	BUS	8733	97	4	4	0	1	0	1	1	0	75	55	24.74	2500	7
520080	100197	03/17/71	V82	70	VOLK	SUPK	6613	97	4	0	0	1	0	1	1	0	76	55	24.60	2500	7
520215	100483	05/05/71	V82	70	VOLK	ELEK	5414	97	4	0	0	1	0	1	1	0	72	51	24.60	2500	7
520011	100007	02/02/71	V83	70	VOLK	BEETL	14114	97	4	4	0	0	1	1	1	0	74	55	24.73	2250	6
520040	100169	03/12/71	V83	70	VOLK	BEETL	9964	97	4	4	0	0	1	1	1	0	76	56	24.72	2250	6
520042	100189	03/16/71	V83	70	VOLK	KAPER	5806	97	4	4	0	0	1	1	1	0	76	56	25.05	2250	6
520043	100179	03/12/71	V83	70	VOLK	BEETL	8292	97	4	0	0	0	1	1	1	0	76	56	24.78	2250	6
520045	100024	02/03/71	V83	70	VOLK	BEETL	9134	97	4	4	0	0	1	1	1	0	77	53	25.06	2250	6
520046	100426	04/27/71	V83	70	VOLK	BEETL	5779	97	4	4	0	0	1	1	1	0	70	53	24.70	2250	6
520047	100063	02/19/71	V83	70	VOLK	BEETL	9650	97	4	4	0	0	1	1	1	0	73	53	24.78	2250	6
520048	100147	03/09/71	V83	70	VOLK	BEETL	8833	97	4	4	0	0	1	1	1	0	75	55	24.86	2250	6
520049	100205	03/18/71	V83	70	VOLK	BUS	7817	97	4	4	0	0	1	1	1	0	77	56	25.10	3000	12
520053	100023	02/09/71	V83	70	VOLK	BEETL	12512	97	4	4	0	0	1	1	1	0	76	54	25.06	2250	6
520062	100132	03/05/71	V83	70	VOLK	BEETL	8978	97	4	4	0	0	1	1	1	0	72	52	24.65	2250	6
520079	100028	02/10/71	V83	70	VOLK	BUS	9562	97	4	4	0	0	1	1	1	0	76	55	24.96	3000	12
520084	100279	03/29/71	V83	70	VOLK	BEETL	4121	97	4	4	0	0	1	1	1	0	77	53	25.10	2250	6
520088	100039	02/12/71	V83	70	VOLK	BUS	12513	97	4	4	0	0	1	1	1	0	74	54	25.19	3000	12
520191	100259	03/25/71	V83	70	VOLK	BEETL	9383	97	4	0	0	0	1	1	1	0	77	56	24.80	2250	6

1970 VEHICLES — COLD START VEHICLE INFORMATION

DENVER CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
520319	100617	06/11/71	VB3	70	VOLK	BEETL	3947	97	4	0	0	0	1	1	1	0	73	55	24.88	2250	6
520330	100627	06/17/71	VB3	70	VOLK	BEETL	5203	97	4	0	0	0	1	1	1	0	80	62	24.90	2250	6

TABLE A-6

Washington D.C.

WASHINGTON D.C. — 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAT NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	DB	WB	BAROM	INAT	HP
620033	000074	06/04/71	A	1	70	AMER	HORNE	13191	232	6	0	0	0	1	1	1	0	74	64	31.06	3000	8
620034	000210	06/24/71	A	1	70	AMER	HORNE	12187	232	6	3	0	0	1	1	1	0	74	64	30.70	3000	8
620215	000066	06/03/71	A	1	70	AMER	HORNE	13137	232	6	0	0	0	1	1	1	0	76	66	31.06	3000	8
620233	000100	06/09/71	A	1	70	AMER	GREML	12172	232	6	3	0	0	1	1	1	0	79	67	30.78	3000	8
620240	000132	06/14/71	A	1	70	AMER	GREML	11214	232	6	0	1	0	1	1	1	0	81	70	30.35	3000	8
620244	000137	06/14/71	A	1	70	AMER	GREML	10042	232	6	3	0	0	1	1	1	0	84	70	30.40	3000	8
620249	000056	06/02/71	A	1	70	AMER	GREML	14338	232	6	3	0	0	1	1	1	0	73	65	31.11	3000	8
620261	000193	06/23/71	A	1	70	AMER	HORNE	13101	232	6	0	1	0	1	1	1	0	74	64	30.65	3000	8
620264	000134	06/14/71	A	1	70	AMER	HORNE	10003	232	6	0	0	0	1	1	1	0	81	70	30.35	3000	8
620288	000257	05/29/71	A	1	70	AMER	HORNE	7528	232	6	0	1	0	1	1	1	0	81	75	31.05	3000	8
620291	000093	06/09/71	A	1	70	AMER	GREML	12972	232	6	3	0	0	1	1	1	0	79	67	30.78	3000	8
620292	000155	06/18/71	A	1	70	AMER	GREML	12956	232	6	0	0	0	1	1	1	0	73	63	30.91	3000	8
620368	000188	06/23/71	A	1	70	AMER	REBEL	12546	232	6	0	1	0	1	1	1	0	74	65	30.65	3500	8
620035	000204	06/24/71	A	2	70	AMER	GREML	7813	199	6	0	0	0	1	1	1	0	77	66	30.70	3000	8
620229	000174	06/21/71	A	2	70	AMER	HORNE	11536	199	6	3	0	0	1	1	1	0	82	72	30.70	3000	8
620350	000136	06/14/71	A	2	70	AMER	GREML	12301	199	6	3	1	0	1	1	1	0	80	74	30.40	3000	8
620366	000172	06/21/71	A	2	70	AMER	HORNE	8090	199	6	0	0	0	1	1	1	0	82	72	30.70	3000	8
620023	000003	05/21/71	A	5	70	AMER	AMBAS	13905	304	8	0	1	0	2	1	1	0	69	63	30.79	4000	8
620204	000059	06/03/71	A	5	70	AMER	HORNE	13347	304	8	0	1	0	2	1	1	0	74	62	31.06	3000	8
620220	000263	06/30/71	A	5	70	AMER	REBEL	11326	304	8	0	1	0	2	1	1	0	76	69	31.00	4000	8
620223	000127	06/14/71	A	5	70	AMER	AMBAS	11410	304	8	0	1	0	2	1	1	0	81	70	30.35	4000	8
620349	000274	06/30/71	A	5	70	AMER	HORNE	12377	304	8	0	0	0	2	1	1	0	78	70	31.00	3000	8
620370	000206	06/24/71	A	5	70	AMER	REBEL	9993	304	8	0	1	0	2	1	1	0	75	65	30.70	4000	8
620302	000194	06/23/71	A	7	70	AMER	AMBAS	5632	360	8	0	1	0	2	1	1	0	73	64	30.65	4000	9
620371	000184	06/22/71	A	7	70	AMER	AMBAS	6012	360	8	0	1	0	2	1	1	0	73	65	30.60	4000	9
620036	000197	06/23/71	A	9	70	AMER	JAVEL	8650	360	8	0	1	0	4	1	1	0	74	65	30.65	3500	9
620192	000199	06/23/71	A	9	70	AMER	JAVEL	8893	360	8	0	1	0	4	1	1	0	76	65	30.65	3500	9
620373	000290	07/01/71	A	9	70	AMER	AMBAS	13882	360	8	0	1	0	4	1	1	0	77	66	30.85	4000	9
620376	000237	06/28/71	A	10	70	AMER	AMBAS	4692	390	8	0	1	0	4	1	1	0	79	67	30.75	4000	9
620417	000202	06/23/71	A	10	70	AMER	AMBAS	7946	390	8	0	1	0	4	1	1	0	79	69	30.65	4000	9
620043	000262	06/30/71	C	10	70	PLYM	DUSTE	6813	198	6	0	1	0	1	1	1	0	77	69	31.00	3000	8
620250	000035	05/27/71	C	10	70	PLYM	DUSTE	14522	198	6	3	0	0	1	1	1	0	72	57	30.76	3000	8
620286	000201	06/23/71	C	10	70	PLYM	VALIA	7342	198	6	0	0	0	1	1	1	0	77	68	30.65	3000	8
620431	000333	07/13/71	C	10	70	PLYM	DUSTE	14212	198	6	3	0	0	1	1	1	0	74	62	30.93	3000	8
620022	000010	05/25/71	C	11	70	DODG	DART	14563	225	6	0	1	0	1	1	1	0	74	61	30.84	3500	8
620026	000005	05/24/71	C	11	70	CHRY	DUSTE	14329	225	6	0	0	0	1	1	1	0	75	59	30.85	3500	8
620027	000009	05/25/71	C	11	70	DODG	DART	13042	225	6	0	1	0	1	1	1	0	74	61	30.84	3500	8
620033	000104	06/09/71	C	11	70	PLYM	DUSTE	13939	225	6	0	0	0	1	1	1	0	79	69	30.72	3500	8
620040	000098	06/09/71	C	11	70	PLYM	VALIA	13473	225	6	0	0	0	1	1	1	0	79	67	30.78	3500	8
620044	000149	06/17/71	C	11	70	PLYM	DUSTE	11146	225	6	3	0	0	1	1	1	0	71	64	30.95	3500	8
620045	000229	06/25/71	C	11	70	PLYM	VALIA	6727	225	6	0	1	0	1	1	1	0	79	68	30.80	3500	8
620046	000196	06/23/71	C	11	70	DODG	DART	12101	225	6	0	0	0	1	1	1	0	74	65	30.65	3500	8
620047	000200	06/23/71	C	11	70	DODG	DART	4035	225	6	0	1	0	1	1	1	0	77	67	30.65	3500	8
620049	000216	06/24/71	C	11	70	DODG	DART	8274	225	6	0	0	0	1	1	1	0	77	67	30.75	3500	8
620050	000244	06/24/71	C	11	70	PLYM	VALIA	9400	225	6	0	1	0	1	1	1	0	83	73	30.70	3500	9
620051	000231	06/25/71	C	11	70	PLYM	DUSTE	10714	225	6	0	1	0	1	1	1	0	79	69	30.80	3500	8
620053	000133	06/14/71	C	11	70	PLYM	DUSTE	12212	225	6	3	0	0	1	1	1	0	81	70	30.35	3500	8
620284	000079	06/07/71	C	11	70	PLYM	DUSTE	12830	225	6	3	0	0	1	1	1	0	75	66	30.85	3500	8
620285	000255	06/29/71	C	11	70	PLYM	VALIA	6062	225	6	3	0	0	1	1	1	0	79	72	30.99	3500	8
620287	000233	06/28/71	C	11	70	DODG	DART	5670	225	6	3	0	0	1	1	1	0	79	66	30.75	3500	9

WASHINGTON D.C. 1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	COLD START EXH	COLD START EVP	DR	HR	BAROM	INRT	HP
620312	000228	06/25/71	C11	70	PLYM	DUSTR	11006	225	6	0	0	0	1	1	1	0	79	68	30.80	3500	8
620435	000348	07/15/71	C11	70	DODG	DART	10627	225	6	0	0	0	1	1	1	0	72	61	30.87	3500	8
620439	000343	07/14/71	C11	70	DODG	DART	11175	225	6	0	0	0	1	1	1	0	73	63	30.95	3500	8
620441	000342	07/14/71	C11	70	DODG	DART	7170	225	6	0	1	0	1	1	1	0	73	63	30.95	3500	8
620444	000341	07/14/71	C11	70	DODG	DART	13147	225	6	3	0	0	1	1	1	0	73	63	30.95	3500	8
620020	000024	05/26/71	C12	70	DODG	CORON	14672	318	8	0	1	0	2	1	1	0	75	65	30.81	3500	9
620030	000007	05/24/71	C12	70	PLYM	SATEL	7967	318	8	0	1	0	2	1	1	0	75	59	30.85	3500	9
620037	000084	06/07/71	C12	70	DODG	DART	14010	318	8	0	0	0	2	1	1	0	75	66	30.85	3500	9
620038	000082	06/07/71	C12	70	DODG	CORON	12740	318	8	0	1	0	2	1	1	0	75	66	30.85	3500	9
620042	000063	06/03/71	C12	70	DODG	DART	11352	318	8	0	1	0	2	1	1	0	76	66	31.12	3500	9
620054	000215	06/24/71	C12	70	PLYM	FURY	11327	318	8	0	0	0	2	1	1	0	76	67	30.70	4500	9
620055	000214	06/24/71	C12	70	DODG	DART	9130	318	8	0	1	0	2	1	1	0	75	66	30.70	3500	9
620056	000212	06/24/71	C12	70	DODG	DODGE	9023	318	8	0	0	0	2	1	1	0	74	64	30.70	4000	9
620058	000297	07/02/71	C12	70	PLYM	VALIA	11760	318	8	0	1	0	2	1	1	0	79	73	30.75	3500	9
620059	000318	07/07/71	C12	70	PLYM	BARRA	12476	318	8	0	1	0	2	1	1	0	79	72	30.80	3500	9
620060	000242	06/28/71	C12	70	DODG	POLAR	13410	318	8	0	1	0	2	1	1	0	81	70	30.70	4500	9
620061	000239	06/28/71	C12	70	DODG	CORON	11410	318	8	0	1	0	2	1	1	0	80	68	30.70	3500	9
620196	000213	06/24/71	C12	70	DODG	CHALL	4762	318	8	4	0	0	2	1	1	0	75	66	30.70	3500	9
620202	000227	06/25/71	C12	70	DODG	CHALL	9094	318	8	0	0	0	2	1	1	0	75	65	30.80	3500	9
620222	000235	06/28/71	C12	70	DODG	CORON	10749	318	8	0	0	0	2	1	1	0	78	66	30.75	3500	9
620259	000101	06/03/71	C12	70	DODG	CORON	12038	318	8	0	1	0	2	1	1	0	79	67	30.78	3500	9
620320	000315	07/07/71	C12	70	PLYM	BELVE	4561	318	8	0	1	0	2	1	1	0	78	71	30.80	3500	9
620380	000327	07/09/71	C12	70	PLYM	FURY	10185	318	8	0	1	0	2	1	1	0	73	61	31.02	4500	9
620425	000314	07/07/71	C12	70	PLYM	SATEL	10680	318	8	0	1	0	2	1	1	0	78	71	30.80	3500	9
620426	000321	07/09/71	C12	70	DODG	DART	9484	318	8	0	1	0	2	1	1	0	84	70	30.95	3500	9
620007	000023	05/26/71	C13	70	CHRY	NEWPO	15236	383	8	0	1	0	2	1	1	0	77	65	30.63	4500	11
620019	000004	05/24/71	C13	70	CHRY	NEWPO	13815	383	8	0	1	0	2	1	1	0	75	59	30.85	4500	11
620041	000089	06/08/71	C13	70	CHRY	NEWPO	13457	383	8	0	1	0	2	1	1	0	79	68	30.75	4500	11
620063	000217	06/24/71	C13	70	CHRY	NEWPO	8866	383	8	0	1	0	2	1	1	0	86	75	30.77	4500	11
620065	000256	06/29/71	C13	70	CHRY	NEWPO	9336	383	8	0	1	0	2	1	1	0	79	72	30.99	4500	11
620066	000189	06/23/71	C13	70	DODG	POLAR	10180	383	8	0	1	0	2	1	1	0	74	65	30.65	4500	11
620067	000160	06/18/71	C13	70	CHRY	NEWPO	11045	383	8	0	1	0	2	1	1	0	73	63	30.91	4500	11
620068	000219	06/25/71	C13	70	PLYM	FURY	8803	383	8	0	1	0	2	1	1	0	76	64	30.80	4500	11
620195	000253	06/29/71	C13	70	PLYM	FURY	8336	383	8	0	1	0	2	1	1	0	77	70	30.95	4500	11
620201	000240	06/28/71	C13	70	DODG	CORON	10023	383	8	0	1	0	2	1	1	0	80	68	30.70	4000	9
620384	000290	07/02/71	C13	70	PLYM	FURY	10007	383	8	0	1	0	2	1	1	0	81	75	30.75	4500	11
620421	000285	07/01/71	C13	70	DODG	POLAR	10723	383	8	0	1	0	2	1	1	0	77	70	30.90	4500	11
620071	000220	06/25/71	C14	70	CHRY	NEWYC	9853	440	8	0	1	0	4	1	1	0	76	64	30.30	5000	11
620072	000248	06/29/71	C14	70	CHRY	300	10217	440	8	0	1	0	4	1	1	0	78	71	30.95	5000	11
620062	000106	06/03/71	C15	70	DODG	DART	8751	340	8	0	1	0	4	1	1	0	79	69	30.75	3500	8
620070	000071	06/04/71	C17	70	PLYM	FURY	10781	383	8	0	1	0	4	1	1	0	75	64	31.06	4500	11
620365	000163	06/18/71	C17	70	PLYM	FURY	13221	383	8	0	1	0	4	1	1	0	76	67	30.91	4500	11
620415	000185	06/22/71	C17	70	DODG	CHALL	11864	383	8	4	1	0	4	1	1	0	74	65	30.60	4000	9
620021	000087	06/08/71	C17	70	CHRY	300	15051	440	8	0	1	0	4	1	1	0	79	68	30.75	5000	11
620073	000080	06/07/71	C17	70	DODG	CHALL	9036	440	8	4	0	0	4	1	1	0	75	66	30.85	4000	9
620211	000187	06/22/71	C17	70	PLYM	GTX	12477	440	8	0	0	0	4	1	1	0	74	65	30.60	4000	9
620300	000175	06/21/71	F30	70	FORD	MAVER	12252	170	6	0	0	0	1	1	1	0	83	74	30.70	2750	4
620327	000057	06/03/71	F30	70	FORD	MAVER	14278	170	6	0	1	0	1	1	1	0	74	62	31.06	2750	4
620333	000075	06/04/71	F30	70	FORD	MAVER	14184	170	6	3	0	0	1	1	1	0	80	70	31.07	2750	4
620367	000153	06/18/71	F30	70	FORD	MAVER	9203	170	6	3	0	0	1	1	1	0	73	63	30.91	2750	4

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WASHINGTON D.C. 1970 VEHICLES COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	DR	WH	BAROM	INRT	HP
620434	000332	07/13/71	F30	70	FORD	MAVER	9190	170	6	3	0	0	1	1	1	0	74	62	30.93	2750	4
620437	000338	07/14/71	F30	70	FORD	MAVER	3130	170	6	3	0	0	1	1	1	0	73	63	30.95	2750	4
620009	000014	05/25/71	F31	70	FORD	MUSTA	12436	200	6	0	0	0	1	1	1	0	74	61	30.66	3000	8
620080	000117	06/10/71	F32	70	FORD	MAVER	11009	200	6	0	1	0	1	1	1	0	79	68	30.98	2750	4
620082	000156	06/18/71	F32	70	FORD	MAVER	10694	200	6	0	1	0	1	1	1	0	73	63	30.91	2750	4
620083	000123	06/11/71	F32	70	FORD	MAVER	11901	200	6	0	1	0	1	1	1	0	78	67	30.92	2750	4
620084	000157	06/18/71	F32	70	FORD	MAVER	13435	200	6	0	1	0	1	1	1	0	73	63	30.91	2750	4
620085	000094	06/08/71	F32	70	FORD	MAVER	8678	200	6	3	1	0	1	1	1	0	80	68	30.75	2750	4
620203	000095	06/08/71	F32	70	FORD	MAVER	9747	200	6	3	0	0	1	1	1	0	80	68	30.75	2750	4
620442	000345	07/15/71	F32	70	FORD	MAVER	7748	200	6	0	1	0	1	1	1	0	72	61	30.87	2750	4
620016	000015	05/25/71	F33	70	FORD	FAIRL	14617	302	8	0	1	0	2	1	1	0	75	68	30.66	3500	8
620018	000019	05/26/71	F33	70	FORD	TORIN	14235	302	8	0	0	0	2	1	1	0	77	65	30.69	3500	8
620090	000150	06/17/71	F33	70	FORD	FALCO	12160	302	8	0	0	0	2	1	1	0	71	64	30.95	3500	8
620091	000246	06/29/71	F33	70	FORD	MUSTA	8693	302	8	0	1	0	2	1	1	0	78	71	30.95	3500	8
620095	000329	07/09/71	F33	70	FORD	MUSTA	5743	302	8	0	1	0	2	1	1	0	73	61	31.02	3500	8
620218	000105	06/09/71	F33	70	FORD	TORIN	9134	302	8	3	1	0	2	1	1	0	79	69	30.72	3500	8
620225	000232	06/25/71	F33	70	FORD	TORIN	4771	302	8	0	1	0	2	1	1	0	82	71	30.90	3500	8
620231	000064	06/03/71	F33	70	FORD	MUSTA	13172	302	8	0	0	0	2	1	1	0	76	66	31.12	3500	8
620246	000191	06/23/71	F33	70	FORD	ECONO	14439	302	8	0	1	0	2	1	1	0	74	65	30.65	4000	8
620256	000226	06/25/71	F33	70	FORD	LDTRU	6028	302	8	3	1	0	2	1	1	0	75	64	30.80	4000	8
620258	000183	06/22/71	F33	70	FORD	TORIN	10214	302	8	0	1	0	2	1	1	0	73	65	30.60	3500	8
620265	000182	06/22/71	F33	70	FORD	FAIRL	13281	302	8	0	1	0	2	1	1	0	74	66	30.60	3500	8
620297	000108	06/10/71	F33	70	FORD	FAIRL	11127	302	8	3	0	0	2	1	1	0	79	68	30.76	3500	8
620363	000203	06/24/71	F33	70	FORD	MUSTA	13213	302	8	0	0	0	2	1	1	0	77	66	30.70	3500	8
620392	000330	07/09/71	F33	70	FORD	CUSTC	8463	302	8	0	1	0	2	1	1	0	73	61	31.02	4000	8
620393	000206	07/01/71	F33	70	FORD	FAIRL	8144	302	8	0	0	0	2	1	1	0	78	71	30.80	3500	8
620424	000304	07/06/71	F33	70	FORD	MUSTA	13676	302	8	0	0	0	2	1	1	0	80	71	30.80	3500	8
620017	000036	05/27/71	F34	70	FORD	FAIRL	14423	351	8	0	1	0	2	1	1	0	72	57	30.96	4000	9
620024	000025	05/26/71	F34	70	FORD	GALAX	14075	351	8	0	1	0	2	1	1	0	75	65	30.81	4000	9
620025	000072	06/04/71	F34	70	FORD	GALAX	14730	351	8	0	1	0	2	1	1	0	75	64	31.06	4000	9
620074	000039	05/28/71	F34	70	FORD	TORIN	13908	351	8	0	1	0	2	1	1	0	74	58	30.90	4000	9
620075	000049	06/02/71	F34	70	FORD	CUSTO	13885	351	8	0	1	0	2	1	1	0	74	58	30.92	4000	9
620076	000119	06/11/71	F34	70	FORD	GALAX	15013	351	8	0	1	0	2	1	1	0	78	67	30.92	4000	9
620077	000067	06/04/71	F34	70	MERC	COUGA	13051	351	8	0	1	0	2	1	1	0	75	64	31.06	3500	9
620078	000081	06/07/71	F34	70	MERC	COUGA	14005	351	8	0	1	0	2	1	1	0	75	66	30.85	3500	9
620079	000062	06/03/71	F34	70	MERC	COUGA	13029	351	8	0	1	0	2	1	1	0	76	66	31.12	3500	9
620088	000083	06/07/71	F34	70	FORD	GALAX	12803	351	8	0	1	0	2	1	1	0	75	66	30.85	4000	9
620096	000259	06/30/71	F34	70	FORD	TORIN	10381	351	8	0	1	0	2	1	1	0	78	70	31.00	4000	9
620097	000300	07/02/71	F34	70	FORD	TORIN	14031	351	8	0	1	0	2	1	1	0	79	73	30.75	4000	9
620098	000205	06/24/71	F34	70	FORD	CUSTO	11897	351	8	0	1	0	2	1	1	0	75	65	30.70	4000	9
620134	000269	06/30/71	F34	70	MERC	COUGA	5815	351	8	0	1	0	2	1	1	0	77	69	31.00	3500	9
620207	000047	06/01/71	F34	70	FORD	GALAX	14152	351	8	0	1	0	2	1	1	0	75	59	30.79	4000	9
620226	000151	06/17/71	F34	70	FORD	GALAX	14852	351	8	0	1	0	2	1	1	0	73	66	30.95	4000	9
620236	000180	06/22/71	F34	70	FORD	LTD	11237	351	8	0	1	0	2	1	1	0	74	66	30.60	4000	9
620242	000051	06/02/71	F34	70	MERC	COUGA	13388	351	8	0	0	0	2	1	1	0	74	58	30.92	3500	9
620099	000266	06/30/71	F35	70	FORD	GALAX	9694	390	8	0	1	0	2	1	1	0	76	68	31.00	4500	11
620228	000270	06/30/71	F35	70	FORD	LTD	10363	390	8	0	1	0	2	1	1	0	77	69	31.00	4500	11
620234	000032	05/27/71	F35	70	FORD	LTD	14352	390	8	0	1	0	2	1	1	0	77	60	30.91	4500	11
620238	000195	06/23/71	F35	70	FORD	LTD	10435	390	8	0	1	0	2	1	1	0	73	64	30.65	4500	11
620273	000250	06/29/71	F35	70	FORD	LTD	9404	390	8	0	1	0	2	1	1	0	77	70	30.95	4500	11

WASHINGTON D.C. 1970 VEHICLES

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	PSD	BBL	PCV	COLD START VEHICLE INFORMATION EXH	EVP	DB	WB	PAROM	INRT	HP
620279	000190	06/23/71	F35	70	FORD	CUSTO	5210	330	8	0	1	0	2	1	1	0	74	65	30.65	4500	11
620308	000258	06/29/71	F35	70	FORD	GALAX	10475	390	8	0	1	0	2	1	1	0	77	72	30.95	4500	11
620323	000033	05/27/71	F35	70	FORD	RANCH	14077	390	8	0	1	0	2	1	1	0	72	57	30.96	4500	11
620396	000288	07/01/71	F35	70	FORD	LTD	14908	390	8	0	1	0	2	1	1	0	78	71	30.80	4500	11
620199	000281	07/01/71	F36	70	FORD	TORIN	4884	429	8	0	1	0	4	1	1	0	77	66	30.80	4000	9
620239	000061	06/03/71	F36	70	FORD	THUND	14529	429	8	0	1	0	4	1	1	0	74	62	31.06	4000	11
620266	000131	06/14/71	F36	70	FORD	LTD	12866	429	8	0	1	0	4	1	1	0	81	70	30.35	4500	11
620443	000349	07/15/71	F36	70	FORD	THUND	5300	429	8	0	1	0	4	1	1	0	72	61	30.87	4000	11
620086	000147	06/17/71	F38	70	FORD	MAVER	11404	250	6	0	1	0	1	1	1	0	74	63	30.90	3000	9
620087	000170	06/21/71	F38	70	FORD	MUSTA	6422	250	6	0	1	0	1	1	1	0	82	72	30.70	3500	8
620089	000192	06/23/71	F38	70	FORD	MAVER	11103	250	6	0	1	0	1	1	1	0	74	64	30.65	3000	8
620235	000052	06/02/71	F38	70	FORD	FAIRL	12343	250	6	3	0	0	1	1	1	0	74	58	30.92	3500	8
620420	000272	06/30/71	F38	70	FORD	MAVER	14256	250	6	0	1	0	1	1	1	0	79	70	31.00	3000	8
620245	000034	05/27/71	F39	70	MERC	COUGA	15117	302	8	4	0	0	4	1	2	0	72	57	30.96	3500	8
620334	000166	06/18/71	F40	70	FORD	TORIN	7824	351	8	0	1	0	4	1	1	0	78	68	30.95	4000	9
620414	000181	06/22/71	F40	70	FORD	TORIN	13161	351	8	4	0	0	4	1	2	0	74	66	30.60	4000	9
620338	000097	06/09/71	F41	70	FORD	LGTRU	11402	360	8	4	1	0	2	1	1	0	77	67	30.78	4000	8
620101	000241	06/28/71	F45	70	MERC	MONTR	5639	429	8	0	1	0	2	1	1	0	80	69	30.70	4500	11
620200	000164	06/18/71	F45	70	MERC	MARQU	8643	429	8	0	1	0	2	1	1	0	76	67	30.91	4500	11
620091	000016	05/25/71	F47	70	LINC	CONTI	11227	460	8	0	1	0	4	1	2	0	75	68	30.66	5500	11
620303	000283	07/01/71	F47	70	LINC	CONTI	14422	460	8	0	1	0	4	1	2	0	77	68	30.80	5500	11
620267	000249	06/29/71	G51	70	CHEV	NOVA	6939	230	6	0	0	0	1	1	1	0	77	70	30.95	3500	8
620272	000142	06/17/71	G51	70	CHEV	NOVA	11023	230	6	0	0	0	1	1	1	0	74	63	30.90	3500	8
620282	000161	06/18/71	G51	70	CHEV	NOVA	13407	230	6	0	0	0	1	1	1	0	73	63	30.71	3500	8
620305	000238	06/29/71	G51	70	CHEV	NOVA	8468	230	6	3	0	0	1	1	1	0	79	67	30.75	3500	8
620612	000013	05/25/71	G52	70	CHEV	NOVA	13960	250	6	0	0	0	1	1	1	0	74	62	30.84	3500	8
620110	000120	06/11/71	G52	70	CHEV	CAMAR	5668	250	6	3	0	0	1	1	1	0	78	67	30.92	3500	8
620111	000103	06/09/71	G52	70	PONT	FIREB	14715	250	6	3	0	0	1	1	1	0	79	67	30.72	3500	8
620112	000130	06/14/71	G52	70	CHEV	CHEVE	13198	250	6	0	0	0	1	1	1	0	81	70	30.35	3500	8
620268	000316	07/07/71	G52	70	CHEV	NOVA	5283	250	6	3	0	0	1	1	1	0	78	71	30.80	3500	9
620269	000165	06/18/71	G52	70	CHEV	CAMAR	8824	250	6	3	0	0	1	1	1	0	78	68	30.95	3500	8
620280	000050	06/02/71	G52	70	CHEV	CAMAR	13029	250	6	3	0	0	1	1	1	0	74	58	30.72	3500	8
620281	000230	06/25/71	G52	70	CHEV	CAMAR	6125	250	6	0	0	0	1	1	1	0	79	69	30.90	3500	9
620293	000225	06/25/71	G52	70	CHEV	CAMAR	5245	250	6	0	0	0	1	1	1	0	75	64	30.80	3500	8
620304	000247	06/29/71	G52	70	CHEV	CHEVE	9700	250	6	0	1	0	1	1	1	0	78	71	30.95	3500	8
620307	000048	06/02/71	G52	70	CHEV	CHEVE	13388	250	6	0	0	0	1	1	1	0	74	58	30.92	3500	8
620309	000146	06/17/71	G52	70	CHEV	NOVA	9371	250	6	0	0	0	1	1	1	0	74	63	30.90	3500	8
620316	000208	06/24/71	G52	70	CHEV	NOVA	6840	250	6	0	0	0	1	1	1	0	74	63	30.70	3500	8
620347	000243	06/28/71	G52	70	CHEV	NOVA	7833	250	6	3	0	0	1	1	1	0	82	71	30.70	3500	8
620003	000006	05/24/71	G53	70	CHEV	CHEVE	11373	307	8	0	1	0	2	1	1	0	75	53	30.85	3500	8
620004	000001	05/20/71	G53	70	CHEV	MALIB	15037	307	8	0	1	0	2	1	1	0	72	62	30.81	3500	8
620105	000124	06/11/71	G53	70	CHEV	CHEVE	14228	307	8	0	1	0	2	1	1	0	76	67	30.92	3500	8
620108	000073	06/04/71	G53	70	CHEV	NOVA	12705	307	8	0	1	0	2	1	1	0	74	64	31.06	3500	8
620117	000254	06/29/71	G53	70	CHEV	MALIB	9397	307	8	0	1	0	2	1	1	0	77	70	30.96	3500	8
620118	000211	06/24/71	G53	70	CHEV	NOVA	4710	307	8	0	1	0	2	1	1	0	74	64	30.70	3500	8
620119	000251	06/29/71	G53	70	CHEV	NOVA	13012	307	8	0	1	0	2	1	1	0	77	70	30.95	3500	8
620120	000236	06/28/71	G53	70	CHEV	CHEVE	11295	307	8	3	0	0	2	1	1	0	81	70	30.35	3500	8
620198	000128	06/14/71	G53	70	CHEV	CHEVE	11941	307	8	0	1	0	2	1	1	0	79	66	30.75	3500	8
620210	000038	05/28/71	G53	70	CHEV	CHEVE	14132	307	8	4	0	0	2	1	1	0	74	58	30.90	3500	8
620230	000065	06/03/71	G53	70	CHEV	CHEVE	12734	307	8	0	1	0	2	1	1	0	76	66	31.12	3500	8

WASHINGTON D.C. 1970 VEHICLES — COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSD	BBL	PCV	EXH	EVP	DR	WB	BAROM	INRT	HP
620283	000308	07/07/71	G53	70	CHEV	CAMAR	14764	307	8	3	0	0	2	1	1	0	80	73	30.80	3500	8
620303	000245	06/29/71	G53	70	CHEV	CAMAR	11627	307	8	3	0	0	2	1	1	0	78	71	30.95	3500	8
620317	000221	06/25/71	G53	70	CHEV	NOVA	4329	307	8	0	1	0	2	1	1	0	76	64	30.80	3500	8
620348	000113	06/10/71	G53	70	CHEV	CHEVE	14101	307	8	3	0	0	2	1	1	0	79	68	30.98	3500	8
620427	000328	07/03/71	G53	70	CHEV	NOVA	11531	307	8	0	1	0	2	1	1	0	73	61	31.02	3500	8
620433	000340	07/14/71	G53	70	CHEV	CAMAR	11816	307	8	0	1	0	2	1	1	0	73	63	30.95	3500	8
620006	000011	05/25/71	G55	70	CHEV	CHEVR	15106	350	8	0	1	0	4	1	1	0	74	61	30.84	4500	11
620216	000091	06/08/71	G55	70	CHEV	CAMAR	9989	350	8	4	0	0	4	1	1	0	79	68	30.75	3500	9
620306	000077	06/04/71	G55	70	CHEV	CAPRI	12455	350	8	0	1	0	4	1	1	0	80	70	31.07	4500	11
620311	000135	06/14/71	G55	70	CHEV	IMPAL	11665	350	8	0	1	0	4	1	1	0	84	70	30.35	4500	11
620314	000107	06/10/71	G55	70	CHEV	CORVE	12594	350	8	4	0	0	4	1	1	0	79	68	30.76	3500	9
620329	000054	06/02/71	G55	70	CHEV	CORVE	14963	350	8	4	0	0	4	1	1	0	73	65	31.11	3500	9
620332	000148	06/17/71	G55	70	CHEV	IMPAL	9728	350	8	0	1	0	4	1	1	0	71	64	30.95	4500	11
620336	000070	06/04/71	G55	70	CHEV	IMPAL	14350	350	8	0	1	0	4	1	1	0	75	64	31.06	4500	11
620339	000085	06/07/71	G55	70	CHEV	CAPRI	14895	350	8	0	1	0	4	1	1	0	75	66	30.85	4500	11
620344	000178	06/21/71	G55	70	CHEV	IMPAL	8688	350	8	0	1	0	4	1	1	0	86	76	30.70	4500	11
620351	000282	07/01/71	G55	70	CHEV	IMPAL	10522	350	8	0	1	0	4	1	1	0	77	67	30.80	4500	11
620428	000336	07/13/71	G55	70	CHEV	IMPAL	11245	350	8	0	1	0	4	1	1	0	74	62	30.93	4500	11
620429	000198	06/23/71	G55	70	CHEV	IMPAL	6037	350	8	0	1	0	4	1	1	0	76	64	30.67	4500	11
620438	000339	07/14/71	G55	70	CHEV	MONTE	12478	350	8	0	1	0	4	1	1	0	73	63	30.95	4000	9
620263	000129	06/14/71	G56	70	CHEV	CHEVY	12025	292	6	3	0	0	1	1	1	0	81	70	30.35	4000	8
620010	000018	05/25/71	G57	70	CHEV	IMPAL	14838	350	8	0	1	0	2	1	1	0	77	65	30.69	4500	11
620102	000053	06/02/71	G57	70	CHEV	CHEVE	14431	350	8	0	0	0	2	1	1	0	73	65	31.11	4000	9
620104	000040	05/28/71	G57	70	CHEV	CAPRI	14172	350	8	0	1	0	2	1	1	0	74	58	30.90	4500	11
620106	000306	07/06/71	G57	70	CHEV	CAMAR	14029	350	8	0	1	0	2	1	1	0	79	70	30.80	3500	9
620109	000058	06/03/71	G57	70	CHEV	CHEVE	13735	350	8	0	1	0	2	1	1	0	74	62	31.06	4000	9
620121	000186	06/22/71	G57	70	CHEV	CHEVR	7603	350	8	0	1	0	2	1	1	0	74	65	30.60	4500	11
620123	000324	07/08/71	G57	70	CHEV	CHEVR	7488	350	8	0	1	0	2	1	1	0	83	69	30.95	4500	11
620124	000287	07/01/71	G57	70	CHEV	CHEVR	12441	350	8	0	1	0	2	1	1	0	78	71	30.80	4500	11
620126	000294	07/02/71	G57	70	CHEV	CHEVE	4703	350	8	0	1	0	2	1	1	0	80	74	30.75	4000	9
620128	000317	07/07/71	G57	70	CHEV	IMPAL	5334	350	8	0	1	0	2	1	1	0	78	71	30.80	4500	11
620129	000140	06/17/71	G57	70	CHEV	IMPAL	11015	350	8	0	1	0	2	1	1	0	74	63	30.90	4500	11
620130	000312	07/07/71	G57	70	CHEV	NOVA	10137	350	8	0	1	0	2	1	1	0	79	72	30.80	3500	8
620131	000305	07/06/71	G57	70	CHEV	CHEVE	4934	350	8	0	1	0	2	1	1	0	80	71	30.80	4000	9
620224	000268	06/30/71	G57	70	CHEV	CAMAR	8951	350	8	0	1	0	2	1	1	0	76	68	31.00	3500	9
620247	000307	07/07/71	G57	70	CHEV	CHEVR	8333	350	8	0	0	0	2	1	1	0	80	73	30.80	4500	11
620248	000167	06/18/71	G57	70	CHEV	IMPAL	11995	350	8	0	1	0	2	1	1	0	80	70	30.95	4500	11
620251	000037	05/28/71	G57	70	CHEV	MONTE	13372	350	8	0	1	0	2	1	1	0	74	58	30.90	4000	9
620254	000276	07/01/71	G57	70	CHEV	MALIB	8090	350	8	0	1	0	2	1	1	0	77	66	30.85	4000	9
620345	000139	06/15/71	G57	70	CHEV	CHEVR	12002	350	8	0	1	0	2	1	1	0	81	69	30.60	4500	11
620419	000279	07/01/71	G57	70	CHEV	CHEVE	7887	350	8	4	0	0	2	1	1	0	76	66	30.85	4000	9
620103	000055	06/02/71	G59	70	CHEV	BELAI	14188	400	8	0	1	0	2	1	1	0	73	65	31.11	4500	11
620290	000169	06/21/71	G59	70	CHEV	CAPRI	10375	400	8	0	1	0	2	1	1	0	82	72	30.70	4500	11
620310	000323	07/08/71	G59	70	CHEV	IMPAL	10606	400	8	0	1	0	2	1	1	0	83	69	30.95	4500	11
620315	000222	06/25/71	G59	70	CHEV	CHEVR	11006	400	8	0	1	0	2	1	1	0	76	65	30.80	4500	11
620326	000331	07/13/71	G59	70	CHEV	IMPAL	7051	400	8	0	1	0	2	1	1	0	74	62	30.93	4500	11
620335	000076	06/04/71	G59	70	CHEV	CHEVR	7688	400	8	0	1	0	2	1	1	0	80	70	31.07	4500	11
620232	000141	05/17/71	G64	70	CHEV	CHEVR	7613	454	8	0	1	0	4	1	1	0	74	63	30.90	4500	10
620002	000017	05/25/71	G61	70	PONT	LEMAN	10574	350	8	0	1	0	2	1	1	0	75	68	30.66	4000	9
620014	000027	05/27/71	G61	70	PONT	FIREB	15346	350	8	0	1	0	2	1	1	0	77	60	30.90	4000	9

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CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BHL	PCV	EXH	EVP	DR	XB	BAROM	INRT	HP
620027	000012	05/25/71	G61	70	PONT	LEMAN	13544	350	8	0	1	0	2	1	1	0	74	62	30.84	4000	9
620132	000045	06/01/71	G61	70	PONT	LEMAN	12966	350	8	0	1	0	2	1	1	0	75	59	30.85	4000	9
620133	000144	06/17/71	G61	70	PONT	CATAL	10444	350	8	0	1	0	2	1	1	0	74	63	30.90	4500	11
620137	000347	07/15/71	G61	70	PONT	LEMAN	14727	350	8	0	1	0	2	1	1	0	72	61	30.87	4000	9
620253	000114	06/10/71	G61	70	PONT	LEMAN	12411	350	8	0	0	0	2	1	1	0	79	66	30.98	4000	9
620328	000086	06/07/71	G61	70	PONT	LEMAN	14047	350	8	0	1	0	2	1	1	0	75	64	30.85	4000	9
620418	000311	07/07/71	G61	70	PONT	TEMPE	11567	350	8	0	1	0	2	1	1	0	79	72	30.80	4000	9
620134	000092	06/08/71	G62	70	PONT	LEMAN	13825	400	8	0	1	0	2	1	1	0	79	68	30.75	4000	9
620135	000090	06/09/71	G62	70	PONT	CATAL	13881	400	8	0	1	0	2	1	1	0	77	68	30.75	4500	11
620139	000284	07/01/71	G62	70	PONT	EXECU	11852	400	8	0	1	0	2	1	1	0	77	70	30.80	4500	11
620219	000301	07/02/71	G62	70	PONT	CATAL	11630	400	8	0	1	0	2	1	1	0	80	74	30.75	4500	11
620270	000293	07/02/71	G62	70	PONT	CATAL	12597	400	8	0	1	0	2	1	1	0	81	75	30.75	4500	11
620295	000043	05/28/71	G62	70	PONT	LEMAN	13078	400	8	0	1	0	2	1	1	0	74	58	30.90	4000	9
620136	000093	06/08/71	G68	70	PONT	GRAND	12491	400	8	0	1	0	4	1	1	0	80	68	30.75	4500	11
620140	000346	07/15/71	G68	70	PONT	GTO	10506	400	8	0	1	0	4	1	1	0	72	61	30.87	4000	9
620330	000069	06/04/71	G68	70	PONT	GRAND	13761	400	8	0	1	0	4	1	1	0	75	64	31.06	4500	11
620403	000218	06/25/71	G69	70	PONT	GRAND	5394	400	8	0	1	0	4	1	1	0	76	64	30.80	4500	11
620013	000026	05/26/71	G70	70	PONT	BONNE	14621	455	8	0	1	0	4	1	1	0	75	65	30.81	5000	11
620142	000310	07/07/71	G70	70	PONT	BONNE	9184	455	8	0	1	0	4	1	1	0	79	72	30.80	5000	11
620274	000030	05/27/71	G70	70	PONT	BONNE	14927	455	8	0	1	0	4	1	1	0	77	60	30.90	5000	11
620321	000273	06/30/71	G70	70	PONT	BONNE	10253	455	8	0	1	0	4	1	1	0	80	71	31.00	5000	11
620143	000041	05/28/71	G66	70	OLDS	DELTA	13436	350	8	0	1	0	2	1	1	0	74	59	30.90	4500	11
620144	000207	06/24/71	G66	70	OLDS	DELTA	13087	350	8	0	1	0	2	1	1	0	74	63	30.70	4500	11
620145	000296	07/02/71	G66	70	OLDS	CUTLA	7107	350	8	4	0	0	2	1	1	0	80	74	30.75	4000	9
620146	000325	07/08/71	G66	70	OLDS	CUTLA	11467	350	8	0	1	0	2	1	1	0	83	69	30.75	4000	9
620147	000264	06/30/71	G66	70	OLDS	DELTA	12379	350	8	0	1	0	2	1	1	0	76	69	31.00	4500	11
620148	000176	06/21/71	G66	70	OLDS	OLDSV	14236	350	8	0	1	0	2	1	1	0	83	74	30.70	4500	11
620149	000278	07/01/71	G66	70	OLDS	CUTLA	8406	350	8	0	1	0	2	1	1	0	76	66	30.85	4000	9
620151	000302	07/02/71	G66	70	OLDS	OLDSM	11192	350	8	0	1	0	2	1	1	0	80	74	30.75	4500	11
620318	000289	07/01/71	G66	70	OLDS	CUTLA	12380	350	8	0	1	0	2	1	1	0	79	72	30.80	4000	9
620446	000298	07/02/71	G66	70	OLDS	CUTLA	10016	350	8	0	1	0	2	1	1	0	79	63	30.75	4000	9
620154	000145	06/17/71	G67	70	OLDS	NINET	10737	455	8	0	1	0	4	1	1	0	74	63	30.90	5000	11
620212	000171	06/21/71	G67	70	OLDS	DELTA	13111	455	8	0	1	0	4	1	1	0	82	72	30.70	5000	11
620221	000152	06/16/71	G67	70	OLDS	NINET	10299	455	8	0	1	0	4	1	1	0	73	63	30.91	5000	11
620237	000060	06/03/71	G67	70	OLDS	NINET	13506	455	8	0	1	0	4	1	1	0	74	62	31.06	5000	11
620276	000292	07/02/71	G67	70	OLDS	DELTA	11558	455	8	0	1	0	4	1	1	0	81	75	30.75	5000	11
620152	000167	06/21/71	G72	70	OLDS	CUTLA	12941	350	8	0	1	0	4	1	1	0	82	72	30.70	4000	9
620277	000177	06/21/71	G72	70	OLDS	CUTLA	10643	350	8	0	1	0	4	1	1	0	83	74	30.70	4000	9
620153	000299	07/02/71	G73	70	OLDS	DELTA	9871	455	8	0	1	0	2	1	1	0	73	73	30.75	5000	11
620208	000115	06/10/71	G73	70	OLDS	DELTA	12528	455	8	0	1	0	2	1	1	0	73	68	30.98	5000	11
620324	000168	06/21/71	G73	70	OLDS	DELTA	11320	455	8	0	1	0	2	1	1	0	82	72	30.70	5000	11
620170	000241	07/02/71	G71	70	BUIC	LESAB	10148	350	8	0	1	0	4	1	1	0	81	75	30.75	5000	11
620171	000118	06/10/71	G71	70	BUIC	SKYLA	13499	350	8	0	1	0	4	1	1	0	73	68	30.98	4000	9
620271	000111	06/10/71	G71	70	BUIC	LESAB	12074	350	8	0	1	0	4	1	1	0	79	68	30.98	5000	11
620301	000223	06/25/71	G71	70	BUIC	LESAB	13487	350	8	0	1	0	4	1	1	0	75	64	30.80	5000	11
620322	000031	05/27/71	G71	70	BUIC	ELECT	14210	350	8	0	1	0	4	1	1	0	77	60	30.90	5000	11
620005	000020	05/26/71	G74	70	BUIC	SKYLA	15303	350	8	0	1	0	2	1	1	0	77	65	30.69	4000	9
620163	000234	06/28/71	G74	70	BUIC	SKYLA	13414	350	8	0	1	0	2	1	1	0	79	64	30.75	4000	9
620164	000275	07/01/71	G74	70	BUIC	LESAB	7358	350	8	0	1	0	2	1	1	0	77	66	30.85	5000	11
620166	000173	06/21/71	G74	70	BUIC	SKYLA	11887	350	8	0	0	0	2	1	1	0	82	72	30.70	4000	9

WASHINGTON D.C. 1970 VEHICLES COLD START VEHICLE INFORMATION

CAR NO	RUN NO	--DATE--	MFG	YR	MAKE	MODEL	ODOMR	CID	CYL	TRN	A/C	FSO	BBL	PCV	EXH	EVP	DB	WB	BAROM	INRT	HP
620167	000121	06/11/71	G74	70	BUIC	SKYLA	12765	350	8	0	1	0	2	1	1	0	78	67	30.92	4000	9
620168	000209	06/24/71	G74	70	BUIC	LESAB	9863	350	8	0	1	0	2	1	1	0	74	63	30.70	5000	11
620169	000267	06/30/71	G74	70	BUIC	SKYLA	5679	350	8	0	1	0	2	1	1	0	76	68	31.00	4000	9
620409	000322	07/08/71	G74	70	BUIC	SKYLA	4663	350	8	0	1	0	2	1	1	0	84	70	30.96	4000	9
620410	000319	07/09/71	G74	70	BUIC	SKYLA	5773	350	8	0	1	0	2	1	1	0	86	71	30.96	4000	9
620155	000028	05/27/71	G75	70	BUIC	RIVIE	14269	455	8	0	1	0	4	1	1	0	77	60	30.90	5000	11
620156	000252	06/29/71	G75	70	BUIC	ELECT	8067	455	8	0	1	0	4	1	1	0	77	70	30.95	5000	11
620157	000261	06/30/71	G75	70	BUIC	ELECT	11151	455	8	0	1	0	4	1	1	0	77	73	31.00	5000	11
620159	000271	05/30/71	G75	70	BUIC	RIVIE	9855	455	8	0	1	0	4	1	1	0	79	70	31.00	5000	11
620160	000309	07/07/71	G75	70	BUIC	LESAB	9975	455	8	0	1	0	4	1	1	0	80	73	30.80	5000	11
620161	000162	06/19/71	G75	70	BUIC	LESAB	12805	455	8	0	1	0	4	1	1	0	76	67	30.91	5000	11
620162	000122	06/11/71	G75	70	BUIC	WILDC	12156	455	8	0	1	0	4	1	1	0	78	67	30.92	5000	11
620241	000277	07/01/71	G75	70	BUIC	ELECT	8407	455	8	0	1	0	4	1	1	0	76	66	30.85	5000	11
620252	000046	06/01/71	G75	70	BUIC	ELECT	14312	455	8	0	1	0	4	1	1	0	75	57	30.79	5000	11
620423	000303	07/06/71	G75	70	BUIC	ELECT	12670	455	8	0	1	0	4	1	1	0	80	71	30.80	5000	11
620173	000125	06/11/71	G77	70	CADI	DEVIL	13825	472	8	0	1	0	4	1	1	0	78	67	30.92	5500	11
620174	000112	06/10/71	G77	70	CADI	DEVIL	6277	472	8	0	1	0	4	1	1	0	79	68	30.98	5500	11
620257	000008	05/24/71	G77	70	CADI	DEVIL	14628	472	8	0	1	0	4	1	1	0	75	60	30.85	5500	11
620262	000102	06/09/71	G77	70	CADI	DEVIL	12926	472	8	0	1	0	4	1	1	0	79	69	30.72	5500	11
620294	000088	06/08/71	G77	70	CADI	CADIL	11122	472	8	0	1	0	4	1	1	0	79	68	30.75	5500	11
620296	000078	06/07/71	G77	70	CADI	DEVIL	13687	472	8	0	1	0	4	1	1	1	75	66	30.85	5500	11
620319	000138	06/14/71	G77	70	CADI	DEVIL	7258	472	8	0	1	0	4	1	1	0	84	70	30.40	5500	11
620179	000096	06/09/71	V82	70	VOLK	FTRK	14427	97	4	0	1	1	0	1	1	0	79	67	30.78	2500	7
620180	000068	06/04/71	V82	70	VOLK	SQBK	13039	97	4	0	1	1	0	1	1	0	75	64	31.06	2500	7
620182	000109	06/10/71	V82	70	VOLK	SQBK	12165	97	4	4	0	1	0	1	1	0	79	68	30.76	2500	7
620011	000002	05/20/71	V83	70	VOLK	BEETL	14949	97	4	4	1	0	1	1	1	0	72	62	30.81	2250	6
620015	000115	06/10/71	V83	70	VOLK	BEETL	14573	97	4	4	0	0	1	1	1	0	79	68	30.98	2250	6
620028	000021	05/26/71	V83	70	VOLK	BUS	13344	97	4	4	0	0	1	1	1	0	77	65	30.69	3000	12
620031	000022	05/26/71	V83	70	VOLK	BUS	6145	97	4	4	0	0	1	1	1	0	77	65	30.69	3000	12
620175	000110	06/10/71	V83	70	VOLK	BEETL	13052	97	4	4	0	0	1	1	1	0	79	68	30.76	2250	6
620177	000042	05/28/71	V83	70	VOLK	BEETL	13747	97	4	0	0	0	1	1	1	0	74	58	30.90	2250	6
620181	000313	07/07/71	V83	70	VOLK	BEETL	10994	97	4	4	0	0	1	1	1	0	79	72	30.80	2250	6
620183	000029	05/27/71	V83	70	VOLK	BEETL	8425	97	4	0	0	0	1	1	1	0	77	60	30.90	2250	6
620185	000143	06/17/71	V83	70	VOLK	BEETL	13634	97	4	4	0	0	1	1	1	0	74	63	30.90	2250	6
620187	000159	06/18/71	V83	70	VOLK	BEETL	9224	97	4	4	0	0	1	1	1	0	73	63	30.91	2250	6
620189	000177	06/21/71	V83	70	VOLK	BEETL	13271	97	4	4	0	0	1	1	1	0	83	74	30.70	2250	6
620190	000265	06/30/71	V83	70	VOLK	BEETL	6452	97	4	4	0	0	1	1	1	0	76	69	31.00	2250	6
620193	000154	06/18/71	V83	70	VOLK	BEETL	11114	97	4	4	0	0	1	1	1	0	73	63	30.91	2250	6
620205	000158	06/18/71	V83	70	VOLK	BEETL	11737	97	4	4	0	0	1	1	1	0	73	63	30.91	2250	6
620413	000320	07/08/71	V83	70	VOLK	BEETL	12674	97	4	0	0	0	1	1	1	0	86	71	30.95	2250	6
620422	000295	07/02/71	V83	70	VOLK	BEETL	12769	97	4	4	0	0	1	1	1	0	80	74	30.75	2250	6
620436	000337	07/13/71	V83	70	VOLK	BUS	14000	97	4	4	0	0	1	1	1	0	74	62	30.93	3000	12
620445	000344	07/14/71	V83	70	VOLK	BEETL	14407	97	4	4	0	0	1	1	1	0	73	63	30.75	2250	6

APPENDIX B

VEHICLE EMISSION TEST DATA TABLES

1. Legend and Interpretation of Vehicle Emission Test Data Tables

2. Tables:

	B-1	Kansas City
	B-2	Houston
	B-3	Los Angeles
	B-4	Detroit
	B-5	Denver
	B-6	Washington D.C.

LEGEND AND INTERPRETATION OF VEHICLE EMISSION TEST DATA TABLES

Key Words	Description
CAR NO	This is the number used to identify each vehicle and the location where test was conducted. The first number denotes the location. 1 = Kansas City, Missouri 2 = Houston, Texas 3 = Los Angeles, California 4 = Detroit, Michigan 5 = Denver, Colorado 6 = Washington D.C.
RUN NO	This is a sequential number assigned to each test in each city.
CYCLE 7 IDLE	This represents the uncorrected emission values from the 7th cycle idle.
CYCLES 1-4	Represents corrected and weighted emission results from the four warmup cycles of the Federal 7-mode test.
CYCLES 6 & 7	This represents the corrected and weighted emission results of the hot cycles of the Federal 7-mode test.
COMPOSITE	This represents the corrected and weighted emission results of the entire Federal 7-mode test as measured in parts per million (volume) for hydrocarbons and nitrogen oxides as dry NO, and in percent (volume) for carbon monoxide.
MASS EQUIVALENT	This represents the composite emission results of the entire Federal 7-mode test expressed in grams per mile for hydrocarbons, carbon monoxide, and nitrogen oxides as dry NO, corrected for humidity.
HUCF	Humidity correction factor as calculated from the wet and dry bulb temperatures and the barometric pressure.

TABLE B-1

Kansas City

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120092	001298	140	1.31	285	13.97	186	0.77	1460	141	0.42	1712	156	0.54	1623	1.60	10.42	4.28	0.83
120100	001310	59	0.33	231	14.18	215	0.78	2063	160	0.32	2272	179	0.48	2198	1.65	8.34	5.15	0.82
120222	001460	252	6.60	115	10.12	317	2.30	1818	214	1.84	2194	250	2.00	2062	2.57	38.61	5.31	0.81
120243	001520	452	10.81	53	7.48	363	2.59	2000	375	2.96	2126	370	2.83	2081	3.42	49.19	4.95	0.83
120254	001554	266	8.70	97	9.25	349	2.63	1548	236	2.22	2083	275	2.36	1895	2.82	45.56	5.13	0.85
120256	001556	231	6.05	73	10.81	370	2.63	871	294	2.14	977	320	2.31	939	2.96	40.15	2.25	0.84
120265	001571	222	6.61	128	10.57	244	1.93	1701	166	1.57	2215	193	1.69	2035	1.98	32.63	5.54	0.86
120273	001583	165	0.36	80	14.44	238	0.86	1325	146	0.27	624	178	0.47	869	1.83	9.07	2.40	0.87
120280	001599	93	0.18	465	14.36	199	0.92	1825	114	0.25	1963	143	0.48	1914	1.47	9.26	5.10	0.84
120198	001421	185	2.45	149	13.03	296	1.44	1879	203	1.00	1928	235	1.15	1910	2.41	22.20	4.90	0.81
120401	001715	293	7.84	91	8.67	605	6.97	207	497	4.57	705	534	5.40	530	4.94	93.86	1.50	1.00
120242	001519	220	5.39	119	11.54	367	3.88	1051	218	2.72	1376	270	3.12	1262	2.77	60.24	3.33	0.83
120274	001584	230	6.74	115	10.70	278	2.46	1701	189	2.03	1941	220	2.18	1856	2.26	42.08	5.13	0.87
120173	001397	170	2.75	146	13.06	215	0.90	992	153	0.82	1219	174	0.84	1139	2.01	18.25	3.53	0.87
120245	001522	105	0.16	455	13.72	183	0.62	1283	146	0.28	1834	158	0.39	1641	2.00	9.28	5.34	0.83
120246	001524	151	1.16	211	13.95	201	1.11	1228	150	0.42	1620	167	0.66	1482	2.11	15.72	4.99	0.86
120008	001152	134	1.59	149	13.33	304	1.63	1406	217	0.48	2001	247	0.88	1792	2.85	19.12	5.34	0.84
120044	001231	44	0.09	191	12.73	202	1.52	1132	155	0.54	1434	171	0.88	1328	2.16	20.95	4.33	0.83
120239	001499	203	3.44	174	12.65	215	2.39	927	145	1.25	1199	169	1.64	1103	2.14	39.06	3.68	0.86
120304	001663	146	3.71	51	10.81	270	2.11	1095	241	1.76	1568	251	1.88	1402	2.86	40.33	4.31	0.87
120156	001375	187	5.09	134	11.56	354	3.04	1701	219	2.25	1873	266	2.52	1812	2.46	43.73	4.35	0.84
120258	001560	128	1.54	276	13.71	271	3.18	1962	145	0.92	2744	189	1.71	2470	1.94	33.02	6.85	0.88
120427	001757	546	6.49	125	9.78	801	2.37	1402	541	2.12	1589	631	2.20	1523	5.83	38.18	4.39	1.01
120429	001794	219	3.85	115	12.10	362	3.62	1472	231	2.02	1850	276	2.58	1717	2.55	44.77	5.26	1.08
120035	001212	113	2.84	114	12.98	213	2.29	1563	139	1.44	1823	164	1.73	1731	1.70	33.85	4.69	0.84
120067	001267	107	0.88	420	13.38	182	1.40	2264	111	0.43	2880	135	0.76	2664	1.56	16.51	7.77	0.82
120070	001270	329	10.36	58	7.97	347	3.47	2504	228	3.19	2524	269	3.28	2517	3.11	71.28	7.35	0.82
120081	001284	342	9.59	69	7.60	399	5.20	1484	288	3.92	1952	326	4.36	1788	3.77	94.75	5.28	0.83
120082	001285	187	5.68	111	10.57	368	2.33	2009	268	1.80	2352	303	1.98	2231	3.15	38.74	5.93	0.83
120088	001294	171	1.91	217	13.24	235	2.06	2167	161	0.60	2604	186	1.11	2451	2.15	24.12	7.29	0.83
120097	001307	140	2.13	323	12.35	237	2.22	1832	148	1.13	2337	179	1.51	2160	2.07	32.81	6.33	0.82
120117	001327	175	3.47	223	11.29	317	3.64	1908	178	1.88	2456	226	2.49	2264	2.61	54.11	6.67	0.82
120124	001335	153	1.46	267	14.00	228	1.80	2320	140	0.59	3103	170	1.01	2828	1.96	21.95	8.47	0.84
120134	001347	336	7.56	107	10.05	450	3.84	2027	255	1.83	2540	323	2.53	2360	3.73	54.98	6.97	0.83
120136	001349	302	8.55	103	9.49	362	4.76	1889	194	1.98	2885	252	2.95	2536	2.91	64.11	7.49	0.83
120140	001353	328	10.65	72	7.75	290	4.27	1538	231	4.58	1306	248	4.47	1387	2.87	97.14	4.09	0.83
120157	001376	211	3.01	190	12.71	245	1.89	2632	163	0.87	3385	191	1.22	3121	2.21	26.51	9.38	0.84
120206	001437	147	2.04	358	12.99	188	1.27	2951	147	1.04	2912	161	1.12	2925	1.86	24.33	8.96	0.86
120237	001482	186	2.08	163	13.23	262	1.44	2053	188	1.01	2140	213	1.16	2139	2.46	25.20	6.37	0.85
120006	001144	136	0.86	180	13.90	200	1.16	1670	150	0.40	2259	167	0.66	2059	2.27	16.88	7.36	0.85
120012	001161	111	1.26	131	13.22	195	0.87	1566	151	0.43	1913	166	0.58	1791	1.92	12.60	5.28	0.83
120013	001165	104	0.83	182	13.12	194	0.83	1594	155	0.36	2135	168	0.52	1945	2.28	13.29	6.89	0.84
120014	001162	112	1.39	115	12.80	193	1.10	1637	141	0.43	2367	159	0.66	2111	2.16	16.88	7.45	0.84
120015	001168	150	1.01	204	13.42	228	1.14	1606	166	0.42	2056	187	0.67	1898	2.16	14.56	5.70	0.84
120104	001314	67	0.15	203	13.67	188	0.53	1737	147	0.24	2107	161	0.34	1977	2.19	8.69	6.81	0.82
120110	001320	103	1.32	227	13.88	193	1.47	1545	137	0.66	1843	156	0.94	1738	1.80	20.42	5.07	0.82
120111	001321	272	8.96	93	8.31	279	2.39	1476	168	2.25	1803	189	2.29	1688	2.57	58.57	5.81	0.82
120112	001322	109	0.30	270	14.25	217	1.17	1799	158	0.56	2021	178	0.77	1943	2.06	16.73	5.67	0.82
120115	001325	125	1.35	152	13.84	187	1.67	1000	130	0.47	1483	149	0.88	1313	1.72	19.12	3.86	0.83
120128	001339	301	7.45	96	9.92	240	2.04	1686	197	1.74	2145	212	1.84	1984	2.68	43.83	6.57	0.85

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120158	001377	124	0.46	214	13.21	218	0.97	1459	177	0.47	1842	191	0.64	1707	2.60	16.37	6.05	0.85
120179	001403	295	5.45	109	11.43	285	1.57	1383	229	1.63	1797	248	1.60	1652	3.14	38.11	5.39	0.83
120200	001423	118	1.18	146	13.23	228	1.36	1441	141	0.51	1878	171	0.80	1725	2.32	20.45	5.86	0.81
120238	001492	132	1.64	134	13.32	183	0.81	1341	129	0.47	1671	147	0.58	1555	2.00	14.83	5.37	0.82
120286	001624	139	1.97	146	12.99	224	1.69	1208	145	0.69	1789	172	1.03	1585	2.34	26.34	5.65	0.85
120301	001660	245	3.50	131	12.94	268	1.46	1498	199	0.77	1990	223	1.01	1817	2.58	21.95	5.67	0.87
120310	001673	338	9.37	80	9.13	291	2.52	1205	215	1.87	1711	241	2.09	1533	2.78	45.41	4.72	0.86
120320	001684	273	6.45	92	10.35	258	1.72	1590	234	1.87	1944	242	1.81	1820	2.80	39.33	5.63	0.87
120328	001692	198	5.08	119	11.51	228	1.68	1318	151	0.91	1940	177	1.17	1722	2.04	25.42	5.31	0.87
120329	001693	179	3.75	150	12.35	198	1.14	1287	158	0.74	1737	172	0.88	1579	1.99	19.12	4.88	0.87
120005	001140	93	2.25	114	12.62	181	1.16	1076	141	0.82	1663	154	0.93	1457	2.09	23.78	5.12	0.84
120007	001151	111	1.51	106	13.04	222	1.19	1760	161	0.62	2382	182	0.81	2164	2.47	20.71	7.61	0.84
120011	001160	289	5.17	99	11.10	273	2.20	1621	195	1.62	1921	222	1.82	1815	3.02	46.55	6.31	0.83
120170	001390	203	8.55	79	9.52	301	3.19	1263	210	3.25	1343	241	3.22	1314	3.05	76.70	4.40	0.86
120176	001400	163	4.06	126	12.29	235	2.19	1201	155	1.41	1623	182	1.68	1475	2.47	42.97	5.38	0.87
120180	001404	252	8.32	73	9.41	172	2.04	561	108	1.88	709	130	1.93	657	1.77	49.36	2.30	0.83
120216	001454	142	3.46	113	12.44	213	1.53	2360	151	1.21	2578	172	1.32	2501	2.34	33.76	8.81	0.84
120247	001532	224	3.25	272	11.83	247	2.49	1071	188	2.07	1229	208	2.21	1173	2.83	56.53	4.11	0.83
120248	001542	270	4.81	74	10.81	294	1.87	1392	204	1.31	1770	235	1.50	1637	3.20	38.36	5.69	0.83
120253	001553	197	6.01	91	10.48	277	2.47	1200	174	2.16	1380	210	2.26	1317	2.86	57.56	4.57	0.85
120293	001640	198	5.57	87	10.89	260	2.77	1436	213	2.67	1614	229	2.70	1551	3.11	69.06	5.60	0.86
120315	001679	239	8.35	82	9.51	349	3.67	1369	228	2.80	1803	270	3.10	1651	3.67	79.29	6.74	0.97
120244	001521	120	2.12	114	13.59	192	1.85	840	93	0.86	963	127	1.20	919	1.82	32.40	3.39	0.83
120269	001577	180	6.75	98	10.48	293	3.59	1318	170	2.26	1676	213	2.72	1550	3.06	73.44	5.84	0.85
120426	001771	215	4.16	82	9.81	248	1.41	1390	228	1.65	1379	235	1.56	1382	3.38	42.13	6.42	1.05
120235	001477	259	7.28	66	9.83	330	3.69	827	264	2.68	1186	287	3.03	1060	3.32	65.85	3.21	0.85
120137	001350	299	7.34	93	9.99	396	3.45	1218	286	3.03	1393	324	3.17	1331	4.41	81.08	4.62	0.83
120223	001461	346	6.41	79	10.43	334	3.05	1081	275	3.30	1140	295	3.21	1119	3.74	76.46	3.56	0.81
120438	001813	1081	3.90	76	10.51	966	2.49	549	662	1.70	631	768	1.97	602	8.76	42.16	2.26	1.07
120422	001761	252	6.29	72	6.24	335	3.74	891	298	4.08	847	310	3.9[illegible]	862	3.93	94.33	3.39	1.01
120026	001196	172	3.95	112	12.18	496	5.03	505	282	1.24	1813	356	2.56	1355	3.07	41.53	3.07	0.85
120409	001798	256	3.99	101	11.68	482	1.99	1406	334	1.81	1498	385	1.87	1465	3.32	30.33	4.02	1.03
120435	001721	208	4.48	108	11.12	588	2.34	1362	303	0.97	1746	402	1.44	1611	3.47	23.35	4.28	1.00
120436	001804	81	0.15	138	8.84	201	0.43	1727	176	0.18	1669	184	0.26	1689	1.76	4.66	5.19	1.04
120129	001340	153	1.01	301	14.64	254	0.64	2713	215	0.34	2948	228	0.44	2865	2.35	8.50	7.71	0.85
120252	001552	181	6.40	98	10.94	390	2.98	1209	253	2.13	1583	300	2.42	1452	2.77	41.88	3.54	0.85
120132	001344	109	0.78	339	14.38	210	0.81	1753	151	0.32	1690	171	0.49	1712	1.63	8.80	4.28	0.85
120159	001382	541	7.71	95	9.98	438	1.93	1485	377	1.63	1544	398	1.73	1523	3.80	31.09	3.76	0.84
120181	001405	321	0.18	1343	14.04	313	0.67	2523	275	0.20	2977	288	0.36	2818	2.75	6.46	6.95	0.83
120191	001414	193	3.02	146	12.67	242	1.30	2291	183	0.79	2540	203	0.96	2452	1.94	17.25	5.98	0.83
120220	001431	244	5.95	122	10.89	258	1.23	1934	204	1.03	2212	222	1.09	2114	2.12	19.58	5.27	0.85
120250	001550	186	6.63	102	10.66	376	2.77	1286	268	2.11	1737	305	2.34	1579	2.63	37.96	3.59	0.85
120267	001575	157	2.56	166	13.47	305	2.05	2087	200	0.59	2314	236	1.10	2234	2.25	19.76	5.67	0.86
120017	001163	266	4.93	206	10.59	205	1.60	733	137	0.58	864	160	0.93	818	1.85	20.21	2.44	0.84
120019	001164	169	2.07	163	12.91	272	1.50	1022	187	0.66	1324	216	0.95	1218	2.50	20.64	3.66	0.84
120047	001239	202	2.25	200	13.25	282	0.79	1503	244	0.65	1877	257	0.69	1746	3.26	16.43	5.77	0.85
120091	001297	148	1.05	202	14.28	248	0.70	1477	198	0.53	1439	215	0.58	1452	2.48	12.60	4.30	0.83
120093	001300	206	2.91	179	13.21	203	1.95	850	142	0.99	1176	163	1.32	1061	1.88	28.68	3.16	0.84
120114	001324	257	3.03	127	13.13	347	2.74	802	257	2.16	825	288	2.36	816	3.65	56.21	2.63	0.82
120140	001363	301	4.59	159	11.95	299	2.50	1553	233	1.47	1862	256	1.83	1753	2.96	39.77	5.15	0.82

KANSAS CITY

1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	-----CYCLE 7 IDLE----- HC	CO	NO	CO2	---CYCLES 1-4--- HC	CO	NO	---CYCLES 6-7--- HC	CO	NO	---COMPOSITE---- HC	CO	NO	-----MASS EQUIVALENT---- HC	CO	NOXC	HUCF
120165	001385	149	1.25	164	14.06	185	2.27	654	112	0.86	779	137	1.35	735	1.58	29.33	2.25	0.86
120168	001388	117	0.17	165	13.59	161	0.86	939	155	0.51	972	157	0.63	959	1.80	13.68	2.93	0.85
120172	001396	86	0.99	157	14.33	304	1.41	691	188	0.43	978	228	0.77	877	2.37	15.06	2.44	0.87
120177	001401	279	4.71	132	11.97	339	2.51	861	242	1.56	1168	275	1.89	1060	3.18	41.07	3.32	0.88
120183	001407	114	0.31	221	14.12	254	1.50	1154	181	0.35	1459	206	0.75	1352	2.38	16.30	3.93	0.81
120185	001409	168	0.67	156	14.19	233	1.06	794	150	0.46	799	179	0.67	797	2.27	15.95	2.53	0.81
120186	001372	178	1.77	181	13.72	218	2.35	630	129	0.86	788	160	1.38	732	1.85	29.99	2.15	0.83
120202	001425	148	0.15	197	13.30	211	1.12	801	159	0.27	1054	177	0.56	965	2.04	12.16	2.80	0.84
120277	001591	143	5.08	84	11.79	286	2.27	697	215	1.47	1014	239	1.74	903	2.49	34.04	2.40	0.83
120283	001607	268	6.82	101	10.65	270	2.47	948	191	1.68	1128	218	1.95	1065	2.52	42.37	3.15	0.83
120033	001206	216	7.02	126	10.45	283	2.47	1333	182	1.42	1977	217	1.78	1751	2.75	42.40	5.69	0.83
120079	001282	163	4.25	148	12.41	279	2.72	1637	160	1.16	2140	201	1.70	1963	2.54	40.49	6.29	0.82
120086	001290	110	0.51	273	14.52	225	1.49	1885	156	0.48	2399	180	0.83	2219	2.28	19.77	7.20	0.83
120147	001360	151	1.77	233	13.83	270	2.35	935	169	1.18	1114	204	1.58	1051	2.58	37.63	3.38	0.82
120155	001374	66	0.12	252	13.37	297	2.76	892	166	0.37	1975	211	1.20	1595	2.67	28.58	5.24	0.84
120196	001419	219	3.63	151	12.46	275	2.29	1788	177	0.98	2379	211	1.43	2172	2.67	34.06	7.17	0.84
120204	001427	168	1.16	246	14.08	381	2.84	1238	246	1.22	1322	293	1.78	1292	3.71	42.40	4.23	0.84
120218	001456	241	3.79	139	12.16	427	3.93	1132	260	1.84	1401	318	2.57	1306	4.03	61.22	4.31	0.85
120224	001462	75	0.11	277	13.34	281	1.90	1750	187	0.41	2390	219	0.93	2166	2.77	22.15	6.85	0.81
120226	001465	132	0.18	252	13.73	244	1.32	1216	200	0.35	1584	215	0.68	1455	2.48	14.77	4.68	0.90
120233	001474	70	0.21	207	13.05	316	1.91	1640	190	0.27	2108	234	0.84	1944	2.96	20.00	6.29	0.83
120263	001569	90	0.22	349	14.10	254	2.64	1180	197	0.66	1638	216	1.35	1477	2.74	32.16	4.97	0.86
120268	001576	263	8.17	85	9.82	355	2.72	1481	239	1.80	1988	279	2.12	1810	3.53	50.50	6.02	0.85
120270	001578	131	0.58	219	13.63	274	1.81	1290	213	0.36	1733	234	0.86	1577	2.96	20.48	5.26	0.85
120271	001579	270	7.97	95	10.02	341	3.46	1034	217	1.94	1608	260	2.47	1407	3.29	58.84	4.64	0.84
120272	001580	108	0.71	275	14.29	294	2.61	969	194	0.69	1550	229	1.36	1346	2.90	32.39	4.48	0.85
120279	001598	170	0.52	269	14.60	284	1.50	1891	213	0.57	2349	237	0.89	2188	3.00	21.19	7.12	0.83
120282	001606	251	1.84	244	13.58	325	1.90	1482	205	0.61	2003	246	1.06	1820	3.12	25.25	5.92	0.83
120297	001656	72	0.18	327	13.62	212	1.23	1131	153	0.34	1529	173	0.65	1389	2.19	15.48	5.39	0.99
120300	001659	89	0.15	251	13.84	234	1.10	1467	175	0.49	1673	195	0.70	1600	2.47	16.67	5.75	0.92
120182	001406	150	0.10	176	12.64	262	1.47	1601	179	0.32	2008	208	0.72	1865	2.83	18.41	6.38	0.81
120187	001410	116	0.21	260	14.11	205	1.72	1283	137	0.62	1470	160	1.00	1404	2.17	25.58	4.88	0.83
120190	001413	93	0.11	279	13.72	207	1.86	1404	145	0.81	1975	166	1.17	1775	2.26	29.92	6.17	0.83
120260	001565	106	0.09	235	13.71	214	1.46	1232	125	0.19	2112	156	0.63	1804	2.12	16.10	6.54	0.86
120261	001566	281	3.84	145	12.48	268	1.93	1136	198	1.03	1643	222	1.34	1465	3.02	34.27	5.31	0.86
120275	001585	192	2.67	135	13.29	271	2.41	1390	185	0.98	1838	215	1.48	1681	2.92	37.85	6.15	0.87
120276	001586	92	0.50	338	14.52	267	2.49	1082	150	0.58	1574	190	1.24	1401	2.58	31.71	5.12	0.87
120293	001658	178	0.12	380	13.61	186	1.24	1178	189	0.38	1715	187	0.68	1527	2.54	17.39	6.36	0.99
120313	001675	104	0.15	200	13.84	205	1.12	1226	137	0.36	1575	160	0.62	1452	2.17	15.85	5.93	0.97
120319	001683	175	1.28	190	14.20	253	3.49	741	130	0.73	1181	173	1.69	1026	2.35	43.22	3.73	0.87
120326	001690	166	1.77	124	14.02	215	2.17	1104	138	0.55	1614	164	1.11	1435	2.23	28.39	5.16	0.86
120118	001329	205	5.74	107	11.13	249	1.37	1365	178	1.25	1557	202	1.29	1489	2.75	32.99	5.22	0.84
120296	001654	355	3.50	135	12.83	239	1.97	739	167	1.17	866	192	1.44	818	2.76	38.87	3.59	0.99
120306	001667	302	5.06	104	11.98	238	2.[illegible]	890	163	1.18	1160	189	1.56	1065	2.71	42.12	4.07	0.86
120410	001762	152	0.09	146	11.03	231	0.27	1721	291	0.18	1996	269	0.21	1899	3.41	5.00	7.58	1.02
120536	001819	380	2.72	92	9.92	617	2.05	1402	456	1.46	1901	512	1.65	1726	5.85	35.61	5.94	0.98
120161	001380	127	2.34	209	13.53	197	0.82	1739	167	0.63	2175	177	0.69	2022	2.04	14.99	6.04	0.84
120289	001633	69	0.40	364	14.54	209	1.15	2235	154	0.53	2295	174	0.74	2273	1.78	14.28	6.26	0.87
120324	001688	334	8.85	82	9.22	319	1.73	3029	273	1.70	3435	289	1.71	3292	2.97	33.01	9.28	0.89
120213	001447	209	0.19	74	9.17	354	0.62	567	286	0.43	550	309	0.49	555	3.22	9.58	1.47	0.83

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120288	001632	401	7.76	98	10.07	325	1.74	998	264	1.86	1266	285	1.81	1172	3.61	43.11	3.98	0.87
120307	001668	185	2.13	251	13.65	233	1.85	952	142	0.70	1349	173	1.10	1210	2.19	26.20	4.09	0.86
120325	001689	343	8.99	68	9.20	529	2.55	1088	360	2.20	1404	419	2.32	1293	4.78	49.77	4.04	0.89
120423	001753	169	1.76	147	11.33	340	2.11	1024	176	0.62	1413	233	1.14	1276	2.95	27.15	4.98	1.00
120535	001818	263	0.34	180	12.91	225	0.52	779	191	0.47	747	202	0.48	758	2.75	12.27	3.41	1.07
120462	001797	220	3.74	106	12.00	382	1.74	1137	219	1.27	1314	276	1.43	1252	3.76	36.57	5.34	1.02
120295	001653	125	0.26	70	13.07	306	0.72	512	217	0.35	658	248	0.47	606	2.83	10.08	2.11	0.99
120408	001722	278	3.84	61	9.44	379	2.20	664	245	2.28	487	291	2.25	548	3.69	53.60	2.18	1.02
120096	001305	111	1.52	156	11.75	124	1.29	1002	68	0.83	1000	87	0.99	1000	1.30	27.80	3.79	0.82
120149	001364	115	1.37	201	11.75	170	1.38	955	103	0.79	1175	126	0.99	1097	1.88	27.80	4.17	0.82
120194	001417	73	0.21	260	11.88	148	1.56	1137	115	0.94	1307	126	1.15	1247	1.88	32.30	4.85	0.84
120020	001175	304	8.72	72	9.45	299	2.22	1158	256	2.19	1322	271	2.20	1264	2.82	43.04	3.47	0.86
120027	001197	473	10.80	48	7.27	273	3.41	948	235	3.36	909	248	3.37	922	2.87	73.24	2.70	0.82
120028	001198	349	9.89	96	8.83	203	2.53	864	112	1.56	871	143	1.89	868	1.65	41.07	2.54	0.82
120041	001225	269	4.85	185	11.97	196	2.07	1100	119	1.11	1362	146	1.44	1270	1.70	31.29	3.73	0.82
120051	001247	119	0.11	162	12.15	207	0.92	1103	151	0.20	1399	170	0.45	1295	1.96	9.77	3.89	0.84
120087	001291	247	4.18	151	12.24	114	0.76	1340	92	0.65	1456	99	0.68	1415	1.14	14.77	4.18	0.83
120095	001304	150	3.87	136	12.39	265	1.84	950	177	0.98	1191	207	1.28	1106	2.15	25.04	2.98	0.84
120023	001187	62	0.88	95	11.82	225	1.21	1222	173	0.39	1606	192	0.67	1472	2.19	14.37	4.35	0.85
120052	001248	178	4.28	108	11.76	108	1.50	882	80	0.94	1114	89	1.13	1032	1.02	24.55	3.09	0.84
120098	001308	192	4.45	123	12.01	147	1.08	1410	121	0.84	1732	130	0.92	1619	1.50	19.99	4.75	0.82
120151	001370	393	8.98	77	9.33	453	2.14	999	454	1.50	1380	453	1.72	1246	4.72	33.65	3.29	0.82
120201	001424	154	6.53	99	10.38	407	3.61	785	188	2.11	1124	264	2.63	1005	2.75	51.45	2.70	0.84
120205	001436	2407	0.16	100	9.43	871	0.74	2155	1008	0.19	2690	942	0.38	2502	9.81	7.43	6.90	0.86
120232	001473	75	0.13	190	12.85	199	2.72	1074	88	0.28	1339	126	1.13	1246	1.45	24.55	3.68	0.83
120290	001634	115	3.64	96	12.72	262	2.45	800	170	1.28	913	202	1.68	873	2.30	36.04	2.64	0.86
120308	001669	220	5.50	100	11.43	161	2.67	686	105	0.96	839	124	1.55	785	1.43	33.68	2.41	0.86
120430	001792	301	6.21	76	10.38	219	1.04	1395	198	1.18	1540	205	1.13	1489	2.37	24.55	5.38	1.01
120442	001772	1281	6.60	66	9.41	368	1.50	1056	352	1.46	1263	357	1.47	1190	4.07	31.53	4.15	0.99
120457	001773	134	2.42	86	8.52	187	1.01	1198	147	0.92	1197	160	0.95	1197	1.66	18.58	3.85	1.00
120460	001793	382	7.93	71	9.64	146	0.66	725	145	0.85	775	145	0.78	757	1.67	16.94	2.85	1.06
120466	001778	256	6.70	96	10.23	187	1.18	1246	113	1.10	1260	138	1.12	1255	1.59	24.33	4.54	1.02
120467	001716	261	4.99	137	7.37	62	1.07	971	81	1.07	1315	74	1.06	1194	0.86	23.04	4.23	1.00
120468	001735	330	7.46	92	9.28	258	2.11	867	202	1.44	991	221	1.67	945	2.55	36.29	3.33	0.99
120530	001808	195	4.47	83	11.69	217	1.46	693	183	1.61	681	194	1.55	685	2.02	30.33	2.23	1.02
120040	001221	325	7.52	86	9.94	592	3.69	824	236	1.80	1167	360	2.46	1046	3.74	48.11	2.76	0.82
120042	001227	307	4.34	123	11.77	300	1.98	900	182	1.18	1015	223	1.46	974	2.58	31.73	2.90	0.84
120050	001246	305	5.36	124	11.30	318	3.06	912	223	1.78	1131	256	2.22	1054	2.96	48.24	3.19	0.85
120055	001252	276	6.34	88	10.59	412	2.94	872	369	1.57	1259	391	2.04	1123	4.07	39.91	3.02	0.84
120058	001255	335	5.07	134	11.35	323	2.86	1024	221	1.47	1246	256	1.95	1168	2.96	42.37	3.47	0.84
120089	001295	1343	9.31	93	8.26	756	3.36	1251	673	2.79	1455	702	2.98	1383	7.31	58.30	3.70	0.83
120101	001311	269	4.04	173	12.35	244	2.02	897	154	0.95	1260	185	1.32	1132	2.14	28.68	3.30	0.82
120103	001313	383	7.09	87	10.36	375	2.70	884	217	1.57	1007	272	1.96	963	3.14	42.59	2.81	0.82
120131	001343	412	9.27	94	9.25	416	3.04	1471	281	1.81	1983	328	2.24	1803	3.79	48.67	5.45	0.85
120141	001354	566	9.01	90	9.14	495	2.57	1187	422	1.98	1591	447	2.18	1449	4.65	42.65	3.88	0.83
120160	001379	305	3.22	279	12.96	328	3.18	992	199	1.36	1124	244	1.99	1077	2.82	43.24	3.21	0.84
120164	001384	144	5.62	136	11.40	305	2.61	1000	124	1.53	1367	187	1.90	1238	2.16	41.28	3.69	0.84
120189	001412	169	0.17	552	12.92	267	1.66	981	188	0.71	1400	215	1.04	1253	2.48	22.59	3.70	0.83
120210	001443	352	3.92	148	12.17	292	1.79	1230	213	1.01	1451	240	1.28	1373	2.77	27.81	4.20	0.86
120212	001446	299	3.69	199	12.37	229	1.11	1390	204	1.02	1575	212	1.05	1510	2.45	22.81	4.47	0.83

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120305	001666	252	3.59	144	12.77	166	1.37	781	124	0.81	864	138	1.00	834	1.59	21.73	2.57	0.86
120312	001675	192	1.79	185	13.71	217	1.49	821	159	0.70	1067	179	0.97	980	2.07	21.07	3.39	0.97
120321	001685	444	7.05	93	10.58	434	4.12	970	322	2.60	1259	361	3.13	1157	4.17	66.02	3.68	0.89
120034	001209	367	8.23	84	9.31	773	9.27	192	366	2.94	1291	508	5.15	906	5.88	111.92	2.72	0.84
120043	001229	208	4.51	117	11.48	309	3.63	1392	215	1.73	1814	247	2.39	1666	3.36	61.13	5.80	0.83
120054	001251	557	9.81	59	8.34	382	2.73	1626	377	1.99	1892	378	2.24	1798	4.37	48.67	5.36	0.84
120062	001261	244	6.63	119	10.39	207	1.88	1395	189	1.96	1377	195	1.93	1383	2.65	49.36	4.76	0.82
120107	001317	255	4.68	121	11.76	199	2.11	880	124	0.85	1006	150	1.29	961	2.04	32.99	3.30	0.82
120108	001318	213	6.67	116	10.87	442	5.28	843	198	2.38	1229	283	3.39	1093	3.59	80.75	3.49	0.82
120125	001336	259	7.01	123	10.35	258	2.45	1427	200	1.38	1998	220	1.75	1798	2.99	44.76	6.33	0.84
120175	001399	447	9.89	71	8.31	367	2.86	1130	344	3.18	1024	352	3.06	1061	4.46	72.89	3.60	0.87
120208	001439	317	6.69	129	10.24	312	2.56	1528	237	1.50	2107	263	1.87	1904	3.58	47.83	6.86	0.86
120231	001471	213	6.15	104	11.05	232	2.66	987	175	2.17	1089	194	2.34	1053	2.64	59.85	3.72	0.84
120262	001568	207	4.56	113	11.98	238	3.09	824	174	1.25	1080	196	1.89	990	2.67	48.34	3.57	0.86
120287	001627	151	1.29	190	13.99	197	0.94	1448	176	0.77	1729	183	0.82	1630	2.49	20.97	6.05	0.88
120291	001635	260	4.51	74	10.85	254	2.16	932	209	0.82	1115	224	1.28	1050	3.05	32.74	3.79	0.86
120292	001639	152	0.75	213	14.34	156	1.23	534	111	0.33	596	126	0.64	574	1.71	16.37	2.05	0.85
120302	001661	784	6.02	53	8.47	472	3.31	224	400	2.78	210	425	2.96	214	4.42	57.91	0.60	0.87
120303	001662	298	5.32	97	11.16	269	2.10	1286	237	1.51	1349	248	1.71	1326	3.14	40.73	4.53	0.87
120002	001134	273	5.74	89	10.80	246	2.07	1163	212	1.48	1255	223	1.68	1222	3.04	43.08	4.35	0.85
120003	001135	102	0.29	273	13.95	194	1.04	1527	143	0.48	1563	160	0.67	1550	2.18	17.18	5.52	0.85
120004	001137	159	3.31	130	12.59	214	2.27	993	129	1.08	1129	158	1.49	1081	2.00	35.49	3.53	0.84
120021	001183	318	7.36	76	10.05	340	2.62	1188	262	2.29	1132	289	2.40	1151	3.67	57.17	3.95	0.88
120022	001185	82	0.16	326	13.57	206	1.21	1613	126	0.32	1849	154	0.63	1766	2.09	16.10	6.46	0.87
120025	001192	206	5.73	126	11.30	284	2.22	1604	169	1.22	2023	209	1.57	1876	2.84	40.15	6.70	0.85
120030	001200	248	7.01	86	10.36	300	4.24	973	202	2.53	1239	236	3.12	1145	3.21	79.80	3.96	0.82
120031	001201	186	2.10	364	13.47	276	2.16	1475	195	0.97	1757	223	1.38	1658	3.03	35.30	5.73	0.82
120036	001213	259	5.76	112	11.12	290	2.86	1264	188	1.66	1452	223	2.08	1386	3.03	53.20	4.86	0.84
120038	001217	275	6.78	70	6.13	327	3.14	1186	236	2.32	1538	267	2.60	1414	3.63	66.50	4.93	0.84
120039	001220	231	5.02	121	11.72	246	2.35	1371	181	1.50	1460	203	1.79	1428	2.57	42.63	4.61	0.82
120049	001242	246	4.45	143	11.97	247	1.92	1287	180	1.24	1650	203	1.47	1522	2.34	31.94	4.58	0.84
120074	001277	252	4.69	205	11.94	368	2.84	1037	242	1.75	1483	286	2.13	1326	3.89	54.48	4.68	0.84
120076	001279	210	4.76	142	11.91	204	1.74	1553	149	1.22	1719	168	1.40	1660	2.13	33.34	5.36	0.82
120099	001309	213	2.68	165	13.14	267	2.74	972	211	2.39	957	230	2.51	962	3.13	64.20	3.31	0.82
120119	001330	154	2.64	180	13.37	110	1.09	789	74	0.74	812	86	0.86	803	1.09	20.48	2.63	0.84
120130	001341	330	8.27	112	9.65	280	2.44	1298	193	1.83	1610	223	2.04	1500	3.03	52.18	5.34	0.85
120133	001346	249	5.78	128	11.59	337	3.39	1240	197	1.71	1595	245	2.29	1470	3.33	58.57	5.10	0.83
120162	001381	438	5.49	123	11.34	337	2.44	1601	280	1.80	1913	299	2.02	1803	4.07	51.67	6.35	0.84
120166	001386	198	4.72	120	12.14	183	1.80	1212	147	1.35	1417	159	1.50	1345	2.01	35.73	4.45	0.85
120207	001438	96	2.03	187	13.21	316	4.26	868	228	2.57	1159	258	3.16	1057	2.98	68.67	3.23	0.86
120215	001451	181	5.06	96	10.98	448	2.94	1181	343	1.46	1605	379	1.97	1456	4.33	42.26	4.29	0.84
120230	001469	261	4.80	128	11.39	204	1.25	1111	182	1.38	1244	189	1.33	1197	2.39	31.67	4.27	0.91
120234	001476	277	5.76	109	11.18	195	2.12	734	143	1.53	807	161	1.73	781	1.86	37.59	2.30	0.83
120249	001548	192	2.66	157	13.46	267	3.21	1011	200	1.74	1330	223	2.25	1218	2.82	53.59	4.07	0.85
120001	001130	292	7.90	84	10.00	248	2.59	1065	178	1.88	1303	202	2.12	1219	2.56	50.61	4.03	0.84
120046	001236	263	7.03	93	10.21	277	3.40	1133	154	1.59	1539	197	2.22	1397	2.68	56.78	5.04	0.86
120048	001241	299	6.16	93	10.27	241	3.61	1129	194	1.92	1580	210	2.51	1422	2.86	64.20	5.01	0.84
120080	001283	241	7.57	93	9.77	248	3.72	1173	146	2.12	1377	181	2.68	1305	2.46	68.55	4.48	0.82
120163	001383	175	1.65	176	13.90	164	1.26	1031	119	0.87	1152	134	1.00	1109	1.82	25.58	3.90	0.84
120227	001466	161	3.19	150	12.34	126	1.21	955	92	0.78	982	103	0.93	972	1.40	23.68	3.71	0.91

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120327	001691	272	8.69	80	9.67	201	2.12	1283	171	2.25	1314	181	2.20	1303	2.46	56.27	4.73	0.87
120105	001315	312	8.88	76	9.90	263	2.57	840	185	2.00	1144	212	2.19	1037	2.68	52.17	3.32	0.82
120192	001415	409	8.89	92	8.31	316	2.49	1037	273	2.80	1231	288	2.69	1163	3.65	64.07	3.75	0.83
120229	001468	243	1.92	101	13.43	211	0.71	724	237	0.74	815	227	0.72	783	2.59	15.44	2.51	0.91
120063	001263	234	6.99	75	10.74	154	1.73	820	143	1.88	931	146	1.82	892	1.98	46.55	3.07	0.82
120113	001323	89	0.59	163	13.11	203	2.55	581	82	0.60	728	124	1.28	676	1.57	30.49	2.17	0.82
120024	001191	235	3.01	172	12.91	203	1.90	932	143	0.85	1317	163	1.21	1182	2.06	28.82	3.93	0.85
120053	001249	161	2.77	140	12.77	121	1.70	665	85	0.70	827	97	1.05	763	1.23	25.00	2.52	0.84
120060	001259	154	4.39	106	11.88	385	2.60	587	257	2.00	844	301	2.21	754	3.43	47.41	2.23	0.84
120077	001280	196	0.68	730	13.93	120	0.58	1523	109	0.34	1897	112	0.42	1766	1.52	10.73	6.13	0.83
120078	001281	193	2.09	240	13.24	122	1.18	1034	96	0.71	1332	105	0.87	1227	1.43	22.25	4.22	0.82
120123	001334	200	2.57	200	13.26	139	1.24	784	113	0.63	1063	122	0.84	965	1.54	20.00	3.16	0.84
120174	001398	86	0.50	377	14.35	88	0.72	765	68	0.37	845	75	0.49	816	0.95	11.67	2.77	0.87
120322	001686	157	1.07	243	14.31	160	1.85	730	98	0.48	915	119	0.95	850	1.50	22.62	2.96	0.89
120333	001698	172	0.70	281	14.14	133	0.63	706	109	0.31	852	117	0.42	800	1.59	10.73	2.88	0.86
120537	001805	508	7.52	77	9.73	390	1.95	644	296	1.93	696	325	1.93	677	4.12	45.97	2.79	1.06
120009	001158	108	0.26	439	14.28	160	0.81	1307	97	0.24	1546	119	0.43	1462	1.62	10.99	5.00	0.83
120084	001288	91	0.20	642	13.98	131	0.65	1524	111	0.37	1853	117	0.46	1737	1.59	11.76	6.07	0.83
120219	001457	196	3.26	162	12.46	182	1.72	636	137	1.14	736	152	1.34	701	2.07	34.27	2.48	0.85
120298	001657	143	0.67	378	14.39	175	0.68	741	135	0.61	958	148	0.63	882	2.01	16.10	3.67	0.99
120311	001674	197	1.01	345	14.37	223	1.51	1287	200	0.72	1813	208	0.99	1628	2.83	25.31	6.64	0.97
120331	001695	160	2.65	148	13.29	185	2.09	706	148	1.11	1189	160	1.45	1019	2.17	37.08	3.65	0.86
120456	001803	181	0.28	312	12.99	216	0.57	784	180	0.34	1276	192	0.42	1103	2.61	10.73	4.71	1.07
120032	001203	213	4.52	109	11.82	157	1.17	656	134	1.03	890	142	1.07	808	1.80	25.48	2.61	0.83
120171	001335	300	2.92	125	12.78	209	1.35	756	241	0.80	1089	229	0.99	972	3.10	25.30	3.54	0.87
120257	001559	272	3.47	152	12.73	217	1.21	1169	207	1.04	1570	210	1.09	1429	2.86	27.87	5.24	0.87
120285	001622	89	0.11	240	13.27	146	1.41	691	106	0.18	1199	120	0.61	1021	1.63	15.59	3.63	0.85
120332	001697	657	7.02	58	9.77	397	1.83	943	421	1.46	1100	412	1.58	1045	5.22	37.63	3.76	0.92
120334	001699	162	0.22	65	12.47	276	0.89	509	247	0.55	576	257	0.66	552	2.93	14.15	1.84	0.95
120010	001159	173	7.22	124	10.22	272	5.74	364	252	5.52	590	259	5.59	510	3.73	150.96	1.87	0.83
120016	001167	144	1.30	176	13.29	166	1.91	736	128	0.79	961	141	1.18	882	1.78	28.10	2.89	0.84
120018	001169	307	4.58	106	11.35	319	3.32	595	258	2.87	680	279	3.02	650	3.53	71.94	2.13	0.84
120037	001216	110	0.96	302	13.86	161	2.03	693	108	0.98	957	126	1.34	864	1.71	34.27	3.02	0.84
120085	001289	174	3.87	117	12.73	160	1.81	704	125	1.34	910	137	1.50	837	1.73	35.73	2.70	0.83
120090	001296	324	5.82	121	11.14	293	1.84	1576	239	1.74	1675	257	1.77	1640	3.26	42.16	5.32	0.93
120122	001333	266	6.57	101	10.74	251	2.73	991	184	1.94	1211	207	2.21	1133	2.62	52.64	3.72	0.84
120126	001337	341	9.52	88	9.12	249	2.98	698	184	2.75	737	206	2.83	723	2.61	67.41	2.39	0.85
120143	001356	220	5.94	98	11.24	417	3.39	497	236	2.32	712	299	2.69	636	3.41	57.57	1.87	0.83
120144	001357	188	3.62	118	12.68	151	1.65	813	115	1.12	846	127	1.30	834	1.61	30.96	2.68	0.82
120228	001467	181	2.71	172	13.61	181	1.31	1070	153	0.97	1213	162	1.08	1162	2.05	25.72	4.09	0.90
120073	001275	275	6.74	78	10.06	190	2.05	904	153	1.71	959	165	1.82	939	2.37	49.14	3.49	0.84
120120	001331	224	5.98	93	10.71	160	1.73	1213	124	1.21	1513	136	1.39	1407	1.95	37.53	5.26	0.84
120142	001355	161	4.85	100	11.66	148	2.44	877	115	1.66	1155	126	1.93	1057	1.81	52.11	3.90	0.83
120193	001416	293	6.50	88	10.10	255	2.40	1051	187	1.88	1271	210	2.06	1193	3.02	55.62	4.46	0.84
120203	001426	215	2.12	105	12.88	226	1.73	901	158	0.86	1072	181	1.16	1012	2.46	29.66	3.56	0.84
120211	001444	104	0.44	198	13.96	129	0.70	1070	97	0.25	1386	108	0.40	1275	1.55	10.79	4.62	0.82
120214	001450	171	2.79	96	12.61	187	2.14	714	153	1.63	662	164	1.80	680	2.23	46.03	2.39	0.84
120221	001459	335	4.31	91	11.18	339	1.53	1308	252	0.86	1435	282	1.09	1390	4.05	29.42	5.21	0.85
120236	001481	237	3.91	101	12.66	212	1.38	892	158	0.88	1025	176	1.05	978	2.23	25.00	3.23	0.85
120102	001312	170	5.80	83	10.74	120	2.32	861	90	1.75	965	100	1.94	928	1.43	52.38	3.37	0.82

KANSAS CITY

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COLD START TEST DATA

CAR NO	RUN NO	IDLE HC	IDLE CO	IDLE NO	IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120127	001338	68	0.34	140	13.38	118	1.36	1315	106	0.44	1637	110	0.76	1524	1.58	20.52	5.72	0.85
120138	C01351	296	6.99	98	10.50	256	4.10	368	173	3.35	442	202	3.61	416	2.91	97.49	1.54	0.84
120169	001389	55	0.12	126	13.10	69	0.70	735	63	0.39	757	65	0.49	749	0.93	13.22	2.81	0.85
120225	001464	147	0.42	151	12.48	119	0.73	1034	124	0.48	1134	122	0.56	1099	1.75	15.12	4.39	0.90
120034	001301	136	1.01	236	13.89	191	1.25	1592	163	0.44	2053	172	0.72	1891	2.47	19.43	7.03	0.84
120154	001373	150	1.32	216	14.14	190	1.80	1202	144	0.52	1843	160	0.96	1618	2.30	25.91	6.04	0.84
120217	001455	109	0.50	183	13.66	187	1.36	1319	119	0.33	1648	142	0.69	1532	2.04	18.62	5.74	0.84
120278	001592	196	4.52	108	12.09	241	2.82	1001	149	1.10	1624	181	1.70	1405	2.60	45.90	5.16	0.83
120309	001672	112	0.55	196	13.99	236	1.86	874	145	0.37	1357	176	0.89	1187	2.53	24.02	4.54	0.86
120314	001678	244	7.86	85	9.98	227	2.84	1090	171	1.98	1525	190	2.28	1372	2.73	61.56	5.91	0.97
120318	001682	149	3.13	141	13.00	265	3.86	892	150	1.41	1257	190	2.26	1129	2.73	61.02	4.34	0.87
120109	001319	277	5.80	102	11.37	311	3.48	904	205	2.03	1225	242	2.53	1112	3.07	60.26	3.56	0.82
120139	001352	290	8.12	96	9.92	329	3.95	1034	209	3.06	1397	250	3.37	1269	3.17	80.28	4.11	0.83
120150	001368	178	3.74	159	12.52	303	4.44	1043	149	1.19	1479	202	2.32	1326	2.56	55.26	4.26	0.82
120167	001387	160	1.58	173	13.51	214	1.62	1296	183	0.84	1376	193	1.11	1348	2.44	26.44	4.47	0.85
120259	001564	168	3.06	218	12.83	220	2.53	1131	153	1.50	1460	176	1.86	1365	2.53	50.23	5.35	0.89
120335	001700	201	5.57	123	11.49	233	2.99	969	170	2.28	1205	192	2.52	1122	2.43	60.02	4.18	0.96
120419	001817	228	4.26	124	11.81	323	3.47	728	179	1.58	1034	229	2.24	926	2.90	53.35	3.63	1.01
120532	001810	296	4.70	133	11.28	364	2.65	1088	241	1.76	1311	284	2.07	1232	3.60	49.30	5.10	1.06
120121	001332	301	6.28	106	10.68	237	3.17	1029	175	1.53	1464	196	2.10	1311	2.81	56.70	4.88	0.84
120323	001687	122	1.18	163	13.93	176	1.73	1083	134	0.47	1381	148	0.91	1276	2.12	24.57	5.02	0.89
120405	001718	161	0.56	162	12.53	182	0.73	1471	191	0.91	1411	187	0.84	1431	2.68	22.68	6.30	0.99
120412	001758	191	0.60	361	13.62	226	1.17	1301	188	0.55	1609	201	0.76	1501	2.89	20.52	6.80	1.02
120413	001799	250	2.57	148	12.38	282	1.86	1253	261	1.31	1479	268	1.50	1399	3.85	40.50	6.51	1.05
120415	001787	258	1.56	170	12.71	250	1.89	1365	220	1.02	1627	230	1.32	1535	3.30	35.64	6.88	1.01
120420	001719	153	1.15	149	12.83	223	2.01	1183	151	0.55	1480	176	1.06	1376	2.53	28.61	6.12	1.00
120424	001756	329	4.73	104	10.84	311	1.75	1328	250	1.02	1595	271	1.27	1501	3.89	34.28	6.63	1.00
120240	001510	223	3.56	138	12.50	154	1.67	779	93	1.02	984	114	1.24	912	1.70	34.83	3.50	0.83
120241	001518	184	5.61	99	11.32	188	1.31	1644	152	1.23	1968	164	1.25	1854	2.45	35.11	7.13	0.83
120316	001680	208	4.47	139	11.95	233	2.79	1134	174	1.47	1596	194	1.93	1434	2.90	54.23	6.44	0.98
120317	001681	128	1.29	150	14.02	188	2.29	1238	130	0.55	1553	150	1.15	1442	2.24	32.30	5.76	0.87
120403	001724	142	0.30	620	12.71	151	0.38	1302	119	0.30	1333	130	0.32	1322	1.94	8.98	6.10	1.00
120071	001273	298	0.67	96	13.54	292	1.64	1639	250	0.84	1735	264	1.12	1701	2.09	16.68	3.47	0.83
120083	001286	143	1.40	193	13.72	196	1.97	1938	140	0.96	2058	159	1.31	2016	1.40	21.68	4.53	0.83
120197	001420	101	1.38	134	13.88	301	1.80	1426	177	0.80	1445	220	1.15	1438	1.74	17.13	2.96	0.84
120029	001199	121	1.48	128	13.17	299	1.51	2811	182	0.70	2751	222	0.98	2771	1.60	13.26	5.07	0.82
120045	001234	127	4.62	94	11.21	208	1.74	1976	116	0.91	1740	148	1.20	1822	1.07	16.24	3.43	0.85
120056	001253	91	2.12	96	11.66	267	1.67	1579	179	0.94	1577	209	1.19	1577	1.51	16.10	2.93	0.84
120057	001254	231	5.82	95	10.67	644	1.64	2183	688	1.36	2207	672	1.45	2198	6.22	25.20	5.24	0.84
120059	001258	665	2.73	96	10.15	389	1.39	2577	349	0.96	2341	362	1.11	2423	2.90	16.70	5.15	0.86
120061	001260	223	2.31	123	13.16	370	1.10	1953	400	0.88	2051	399	0.95	2016	3.60	16.51	4.84	0.84
120064	001264	58	0.28	120	13.44	236	1.54	1779	169	0.59	1924	192	0.92	1873	1.38	12.49	3.41	0.82
120065	001265	114	1.89	144	11.48	226	1.20	2513	155	0.67	2340	179	0.85	2400	1.43	12.79	4.85	0.82
120066	001266	173	1.60	103	13.05	244	0.63	1969	220	0.59	1579	228	0.60	1715	2.11	10.42	4.00	0.82
120068	001268	91	2.69	121	12.69	255	1.81	1862	174	0.75	1798	202	1.12	1820	1.46	15.21	3.32	0.82
120069	001269	515	0.17	81	12.07	269	0.82	2005	295	0.38	1811	285	0.53	1878	2.63	9.20	4.38	0.82
120072	001274	130	4.09	107	11.51	347	2.08	1840	298	1.31	1946	315	1.57	1908	2.27	21.32	3.57	0.84
120075	001278	240	4.87	199	8.31	514	2.06	1910	518	1.30	2011	516	1.56	1975	3.73	21.18	3.63	0.82
120106	001316	88	2.75	90	10.20	238	1.61	1972	167	1.22	1758	191	1.35	1832	1.38	18.33	3.33	0.82
120116	001326	98	3.71	107	11.74	301	2.16	1968	263	1.33	1919	276	1.62	1936	1.99	21.99	3.56	0.83

KANSAS CITY — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
120135	001348	214	4.40	96	9.59	504	1.86	1723	425	1.55	1448	452	1.65	1544	3.26	22.40	2.84	0.83
120209	001440	223	3.90	119	10.63	274	1.81	2707	224	1.15	2640	241	1.38	2663	1.93	20.77	5.65	0.86

TABLE B-2

Houston

HOUSTON — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
220041	001083	186	2.53	196	12.59	239	1.76	1451	159	0.85	2009	186	1.16	1813	1.91	22.39	5.53	0.96
220081	001192	320	8.38	62	9.60	616	2.34	1264	415	2.59	1504	485	2.50	1420	4.49	43.45	4.02	0.99
220116	001251	169	1.38	350	12.90	271	1.51	2140	188	0.64	2803	217	0.94	2570	2.23	18.14	8.15	1.00
220215	001563	174	1.93	261	13.67	264	1.59	1657	184	0.97	1928	211	1.18	1833	2.16	22.77	6.06	1.04
220233	001589	133	1.94	102	13.45	280	1.09	1399	237	0.74	1674	252	0.86	1577	2.33	14.94	4.86	1.08
220234	001590	219	2.98	103	12.81	241	0.63	801	215	0.60	816	224	0.61	810	2.30	11.77	2.80	1.10
220268	001652	119	1.14	114	13.91	348	2.31	630	255	1.74	685	288	1.93	665	2.66	33.54	2.15	1.13
220282	001745	159	3.03	123	12.62	291	1.24	1288	203	0.93	1788	233	1.03	1613	2.69	22.38	6.99	1.22
220322	001809	158	2.20	171	13.30	323	1.50	1655	267	1.26	1951	286	1.34	1847	2.64	23.28	5.79	1.10
220383	002121	366	2.42	96	12.77	494	1.67	1649	305	1.53	1805	371	1.57	1750	3.43	27.28	4.83	0.97
220036	001069	93	0.11	257	13.00	245	0.81	1273	179	0.26	1493	202	0.45	1415	2.07	8.68	4.27	0.95
220327	000822	158	1.04	241	13.63	232	1.70	1057	168	1.50	1205	190	1.57	1153	2.19	34.11	5.29	1.29
220370	001884	183	5.77	172	10.92	255	2.82	808	203	2.10	1081	221	2.35	985	2.27	45.37	3.79	1.22
220131	001313	111	1.15	194	13.95	152	1.60	638	104	0.57	893	120	0.93	803	1.52	22.15	3.14	1.00
220307	001804	162	2.67	124	12.76	266	1.47	1112	229	1.15	1296	241	1.26	1231	3.05	30.01	6.19	1.29
220309	001859	116	0.23	238	13.76	229	2.84	624	139	0.28	1281	170	1.17	1051	1.96	25.42	4.81	1.29
220384	002124	63	0.51	76	10.44	401	0.53	1866	337	0.49	2100	359	0.50	2018	3.74	9.78	6.40	0.99
220286	001807	132	0.09	241	13.18	265	0.98	1678	218	0.24	2016	234	0.49	1897	2.96	11.67	9.69	1.31
220376	001915	254	6.14	59	10.40	315	2.99	717	316	3.79	627	315	3.50	658	3.64	76.06	3.27	1.40
220298	001789	248	1.10	102	12.79	334	2.19	1321	300	0.69	1747	311	1.21	1597	3.94	28.82	7.53	1.21
220275	001729	162	1.28	77	13.06	409	2.09	1423	378	1.03	1681	388	1.40	1590	3.59	24.29	5.25	1.16
220309	001798	155	0.12	382	13.42	322	0.80	1402	206	0.34	1829	246	0.50	1679	2.53	9.65	6.86	1.29
220328	000818	152	2.58	88	13.14	287	2.92	1006	213	1.70	1085	238	2.12	1057	2.20	36.84	3.88	1.29
220334	002085	90	0.44	149	13.31	578	4.44	1484	238	2.19	1675	357	2.97	1608	3.30	51.62	5.27	1.15
220359	001904	185	3.21	122	12.20	305	2.35	1029	269	2.41	1006	281	2.38	1014	2.60	41.37	3.53	1.22
220039	001075	193	3.62	315	11.94	290	3.09	2000	156	1.34	2783	202	1.95	2508	2.33	42.37	8.50	0.95
220111	001239	174	2.78	247	12.87	280	3.47	1895	138	0.70	2821	187	1.66	2496	2.16	36.07	8.50	0.95
220150	001348	140	0.65	241	12.50	428	2.87	2046	206	0.42	2952	283	1.27	2634	3.27	27.59	9.53	1.01
220164	001367	325	7.06	109	8.85	472	3.98	2090	268	1.99	2821	339	2.68	2565	3.92	58.24	8.63	0.94
220194	001458	287	7.15	87	9.26	306	2.39	1946	248	2.02	2155	268	2.14	2081	3.10	46.50	8.47	1.14
220217	001569	193	4.35	182	11.54	249	2.67	1860	152	1.20	2526	185	1.71	2292	2.14	37.15	8.84	1.08
220223	001581	311	7.03	95	10.01	353	3.04	1165	238	1.79	1605	277	2.22	1450	3.20	48.24	5.48	1.06
220225	001578	296	8.79	46	8.46	506	4.53	1185	368	3.13	1448	415	3.61	1355	4.32	70.63	4.75	1.09
220229	001584	214	3.18	141	11.98	265	2.04	1979	195	1.01	2254	219	1.37	2157	2.53	29.77	9.17	1.19
220230	001585	262	5.90	82	9.72	323	2.34	2026	234	1.77	2255	265	1.96	2174	3.07	42.59	9.25	1.19
220236	001592	280	6.54	108	10.43	291	2.86	2216	222	1.66	2793	246	2.08	2591	2.84	45.19	10.38	1.12
220252	001609	107	0.19	608	13.40	197	1.88	1705	127	0.30	2199	151	0.85	2026	1.74	18.47	8.72	1.21
220262	001631	136	0.30	275	12.43	243	1.65	1763	176	0.37	2237	199	0.81	2071	2.30	17.60	8.89	1.21
220267	001646	240	5.29	70	11.43	412	2.63	1002	336	1.53	1346	361	1.91	1225	3.76	37.37	4.75	1.21
220281	001748	135	2.43	67	13.16	322	1.27	1116	327	1.18	1306	325	1.21	1239	3.70	25.95	5.42	1.25
220382	002069	202	2.96	174	12.47	257	2.44	2042	171	1.02	2529	201	1.51	2358	2.32	32.81	9.96	1.18
220009	000933	220	3.47	95	12.35	272	2.99	1426	185	0.83	2280	215	1.58	1981	2.49	34.34	6.87	0.98
220011	000935	272	8.29	56	9.39	283	3.29	1274	211	2.86	1647	236	3.01	1516	2.73	65.42	5.36	0.99
220024	001022	121	1.42	152	13.73	197	0.99	1410	127	0.43	1894	151	0.62	1724	1.74	13.46	5.87	0.95
220027	001055	239	6.29	85	10.25	246	2.20	1732	194	1.78	2126	212	1.92	1988	2.45	41.72	6.75	0.95
220040	001082	126	1.41	118	13.55	193	0.96	1452	136	0.41	1792	155	0.60	1673	1.79	13.03	5.67	0.95
220093	001208	107	0.74	135	14.05	294	1.90	758	174	0.48	1050	216	0.97	947	2.25	18.97	2.96	0.98
220101	001216	175	3.70	126	12.17	240	1.98	1451	157	0.88	1951	186	1.26	1775	2.15	27.37	6.07	0.96
220102	001217	168	1.70	177	13.68	302	2.29	1740	159	0.58	2357	209	1.17	2141	2.41	25.42	7.29	0.95
220109	001233	187	2.49	157	13.38	265	1.85	1715	182	0.84	2318	211	1.19	2106	2.44	25.86	7.11	0.95

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1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CO	NO	CO2	CYCLES 1-4 HC	CO	NO	CYCLES 6-7 HC	CO	NO	COMPOSITE HC	CO	NO	MASS EQUIVALENT HC	CO	NOXC	HUCF
220151	001349	168	1.40	438	13.61	249	2.15	2302	143	0.41	3089	180	1.01	2813	2.08	21.95	10.18	1.01
220154	001353	291	6.43	86	10.74	307	1.89	1107	262	1.54	1541	277	1.66	1389	3.20	36.07	5.08	1.03
220162	001363	491	8.28	55	9.35	264	2.25	1026	244	1.82	1373	251	1.97	1251	2.90	42.81	4.35	0.98
220170	001385	249	6.05	97	10.05	263	1.89	1986	217	1.80	2468	233	1.83	2299	2.69	39.77	8.09	0.99
220176	001399	149	1.49	117	12.56	167	0.79	919	143	0.56	1337	151	0.64	1190	1.91	15.24	4.70	1.01
220185	001430	129	2.91	116	12.79	160	1.20	1358	120	0.77	1561	134	0.92	1489	1.55	19.99	6.04	1.14
220201	001495	207	6.57	89	10.72	206	2.40	995	173	1.90	1398	184	2.07	1256	2.13	44.98	4.75	1.06
220202	001504	155	1.97	101	12.88	244	1.20	1133	196	0.63	1597	213	0.82	1434	2.46	17.82	5.60	1.10
220203	001511	137	1.59	110	13.00	213	1.11	1114	182	0.81	1487	192	0.91	1356	2.21	19.77	5.75	1.19
220216	001564	107	0.97	187	13.77	195	1.09	1373	151	0.70	1603	166	0.83	1522	2.11	19.77	6.21	1.04
220222	001575	132	1.59	194	13.50	205	1.16	1185	151	0.63	1559	170	0.81	1428	2.31	20.71	6.36	1.06
220007	000928	437	9.68	57	8.71	334	4.88	1055	335	5.46	930	334	5.25	973	4.55	134.29	4.29	1.05
220012	000936	89	1.90	119	12.72	192	1.96	1666	134	1.11	2131	154	1.40	1968	2.09	35.81	8.18	0.99
220013	000937	176	6.54	71	10.02	246	3.65	1335	169	2.42	1980	199	2.85	1754	2.71	72.90	7.22	0.98
220016	000940	891	10.32	50	7.27	472	3.30	1591	442	3.24	1975	452	3.26	1840	6.15	83.38	7.39	0.96
220017	000941	2971	11.98	85	5.37	1124	6.82	776	997	6.38	1011	1041	6.53	928	14.18	167.03	3.72	0.96
220098	001213	294	8.02	81	9.55	330	2.49	1547	256	1.95	2027	281	2.13	1858	3.82	54.48	7.38	0.95
220113	001243	195	2.32	145	13.24	166	0.82	1308	137	0.75	1319	147	0.77	1315	2.00	19.69	5.56	1.01
220156	001357	215	4.65	92	11.32	298	2.71	984	191	1.12	1433	228	1.67	1275	2.89	39.78	4.61	0.93
220186	001431	203	5.92	78	10.80	239	2.64	1384	174	1.87	1796	196	2.13	1651	2.67	54.48	7.88	1.14
220213	001560	243	3.27	127	12.16	283	2.32	1049	195	1.17	1376	225	1.57	1261	3.05	40.15	5.46	1.03
220312	000815	122	2.19	102	12.61	220	1.98	965	149	1.24	1067	173	1.49	1031	2.48	40.23	5.39	1.18
220349	000850	290	6.83	60	9.91	332	3.02	1127	262	2.97	1276	286	2.98	1223	4.11	80.46	6.73	1.24
220251	001608	220	4.68	60	9.73	513	9.74	93	382	8.83	102	427	9.14	98	4.94	198.63	0.42	1.19
220010	000934	761	7.71	72	8.74	362	4.28	1256	376	3.67	1490	371	3.88	1408	5.06	99.25	5.74	0.97
220121	001273	231	5.06	68	11.99	339	3.51	1117	201	2.45	1273	249	2.82	1218	3.39	72.13	5.34	1.05
220263	001653	418	4.14	46	7.85	335	4.16	357	273	3.04	485	294	3.43	440	3.73	81.70	1.97	1.15
220326	001862	175	3.74	45	8.82	219	3.38	427	177	2.98	499	191	3.12	473	2.42	74.32	2.07	1.12
220008	000929	227	5.92	53	8.82	427	5.31	483	206	4.32	575	283	4.66	542	3.59	111.01	2.12	1.01
220266	001645	473	9.68	37	8.51	316	3.34	1137	310	3.11	1392	312	3.19	1302	3.95	75.99	5.70	1.12
220087	001201	266	6.13	103	10.24	319	1.56	2028	209	1.06	2392	247	1.23	2264	2.36	22.10	6.32	0.95
220257	001622	132	0.88	154	13.38	465	2.08	1123	348	1.02	1615	388	1.39	1442	3.35	22.54	4.00	1.04
220294	001788	110	0.73	146	13.88	360	1.56	885	269	0.84	1197	300	1.09	1087	2.59	17.67	3.68	1.27
220296	000843	61	0.15	124	13.74	362	1.28	1230	275	0.67	1441	305	0.88	1367	2.63	14.27	4.46	1.23
220306	001901	179	5.09	76	11.77	339	2.81	1125	259	2.03	1285	286	2.30	1228	2.47	37.31	3.96	1.21
220353	001876	207	4.53	76	12.04	443	2.90	842	334	2.60	936	372	2.70	903	3.21	43.80	2.99	1.25
220031	001061	52	0.45	187	14.09	338	2.03	1499	218	0.51	1966	260	1.04	1802	2.24	16.87	4.58	0.96
220114	001246	188	4.44	56	6.51	294	2.20	1712	224	1.28	2082	248	1.60	1952	2.37	28.75	5.76	1.00
220117	001257	401	6.54	94	10.58	442	4.10	1178	310	1.28	2343	356	2.26	1935	3.40	40.61	5.67	0.99
220140	001330	276	4.42	82	8.49	342	2.14	1630	244	1.02	1902	278	1.41	1806	2.66	25.34	5.05	0.95
220161	001362	230	3.83	101	12.31	317	1.83	2029	248	0.92	2536	272	1.23	2358	2.60	22.10	6.79	0.98
220211	001558	395	9.02	90	9.24	563	5.09	1866	370	1.79	3243	437	2.94	2761	4.18	52.83	8.36	1.03
220004	000932	97	0.92	229	13.63	246	3.02	604	149	0.93	779	182	1.66	717	2.10	36.07	2.47	0.97
220005	000930	239	6.24	92	11.30	199	1.72	1022	186	1.78	1180	190	1.75	1124	2.19	38.03	3.90	0.97
220054	001096	209	3.35	130	12.63	276	3.22	517	160	1.36	759	200	2.01	674	2.31	43.68	2.33	0.97
220115	001247	407	0.63	123	13.42	324	1.34	559	254	0.43	751	278	0.74	683	3.17	15.87	2.43	1.01
220142	001332	127	0.19	332	13.77	203	1.72	981	135	0.31	1133	158	0.80	1079	1.82	17.38	3.64	0.95
220148	001342	144	0.47	162	13.53	202	1.68	747	165	0.53	889	177	0.93	839	2.24	22.15	3.31	1.01
220168	001378	234	2.96	119	13.01	317	2.04	1044	249	0.79	1382	272	1.22	1263	3.14	26.51	4.27	0.95
220192	001452	183	2.58	127	13.07	322	4.10	653	199	1.36	1490	242	2.31	1197	2.80	50.20	4.74	1.11

HOUSTON 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CO	NO	CO2	CYCLES 1-4 HC	CO	NO	CYCLES 6-7 HC	CO	NO	COMPOSITE HC	CO	NO	MASS EQUIVALENT HC	CO	NOXC	HUCF
220221	001573	138	0.45	250	14.15	252	1.38	1199	190	0.56	1495	211	0.84	1391	2.43	18.25	5.57	1.12
220228	001583	191	3.55	78	11.57	420	1.90	678	349	1.44	810	373	1.60	763	3.89	31.30	2.87	1.17
220235	001591	173	0.46	131	13.69	323	1.49	1270	311	0.60	1657	315	0.91	1521	3.64	19.77	6.00	1.11
220249	001606	234	6.23	76	10.91	268	2.18	686	234	1.47	1066	246	1.71	933	2.84	37.15	3.91	1.18
220269	001655	540	4.58	101	12.06	413	1.84	623	283	1.17	762	327	1.40	713	4.15	33.34	3.12	1.12
220289	001791	132	0.52	170	14.02	255	1.03	948	217	0.58	1138	230	0.73	1071	2.66	15.86	4.78	1.25
220316	000825	168	4.57	76	12.07	335	2.44	600	317	1.71	751	323	1.96	698	3.36	38.34	2.62	1.17
220002	000926	451	3.97	88	11.60	264	1.95	772	248	1.12	996	253	1.41	917	3.20	33.58	4.00	1.12
220110	001234	289	6.60	69	10.03	531	4.01	1477	297	1.49	2316	378	2.37	2022	4.79	56.45	7.48	0.95
220120	001269	147	4.37	100	12.01	415	1.96	1026	262	1.60	1501	315	1.72	1334	3.59	36.89	4.49	0.96
220127	001306	228	5.38	136	11.66	251	2.63	1038	182	1.35	1435	206	1.79	1296	2.38	38.89	4.54	0.98
220147	001340	267	8.41	81	9.17	692	3.97	982	304	2.38	1513	439	2.93	1327	5.57	69.79	5.12	0.99
220167	001376	136	1.24	176	13.70	265	3.31	891	150	0.53	1440	190	1.50	1247	2.41	35.73	4.57	0.96
220171	001386	88	0.27	285	13.78	271	2.11	1643	165	0.26	2351	202	0.90	2103	2.56	21.43	8.14	0.99
220226	001579	236	0.08	268	13.60	165	0.35	1260	179	0.29	1357	174	0.31	1323	2.01	6.73	5.26	1.12
220238	001595	141	1.77	164	13.65	232	2.17	1019	173	0.86	1365	193	1.31	1243	2.44	31.20	5.53	1.14
220241	001598	332	11.57	36	8.19	355	4.71	552	273	4.45	745	301	4.54	677	3.81	108.14	3.22	1.22
220243	001600	90	0.34	205	14.87	294	1.61	814	122	0.37	1315	182	0.80	1139	2.31	19.05	5.43	1.22
220246	001603	328	6.90	117	10.60	330	2.79	882	253	2.09	1300	280	2.33	1153	3.23	50.63	4.37	1.07
220253	001610	159	0.64	171	13.91	264	1.37	888	207	0.59	1097	226	0.86	1023	2.61	18.68	4.45	1.22
220260	001626	64	0.11	270	13.37	287	3.68	600	146	0.39	1451	195	1.54	1153	2.47	36.68	5.01	1.11
220283	001754	134	1.74	186	13.78	327	5.26	403	177	0.93	1379	230	2.44	1037	2.91	58.12	4.93	1.22
220284	001785	194	4.55	95	11.86	296	2.70	1139	210	1.21	1484	240	1.73	1363	3.04	41.21	6.51	1.22
220287	001790	375	9.33	67	9.13	400	3.44	1595	337	3.01	1968	359	3.16	1837	4.55	75.27	9.12	1.27
220288	001799	235	6.25	91	10.90	325	2.22	794	229	1.67	1135	262	1.86	1015	3.32	44.30	5.17	1.31
220313	001797	116	0.48	272	13.95	380	5.47	278	244	3.14	672	291	3.95	534	3.69	94.09	2.67	1.29
220112	001242	276	5.61	77	11.43	572	3.98	1032	224	1.72	1309	345	2.51	1212	4.70	64.20	5.14	1.01
220152	001351	156	2.24	125	13.27	248	4.94	526	133	0.55	1406	173	2.08	1098	2.35	53.20	4.69	1.02
220159	001360	94	0.18	217	13.88	177	2.40	613	73	0.48	741	109	1.15	696	1.48	29.41	2.82	0.97
220178	001412	231	6.13	79	11.02	230	2.51	915	177	1.82	1132	195	2.06	1056	2.65	52.69	4.47	1.01
220219	001571	117	0.24	277	14.04	178	1.19	1102	133	0.28	1627	149	0.59	1443	2.02	15.08	6.70	1.11
220232	001588	376	9.55	41	9.07	335	2.27	1331	265	3.06	1135	290	2.78	1203	3.94	71.11	5.45	1.08
220245	001602	357	7.71	58	10.36	409	4.78	482	310	3.77	580	343	4.12	545	4.68	105.39	2.83	1.24
220255	001612	133	1.28	194	14.02	191	2.72	563	122	1.00	907	146	1.60	786	1.98	40.92	4.02	1.22
220270	001656	343	8.86	52	9.57	195	3.30	772	266	2.53	1136	241	2.79	1008	3.05	66.46	4.48	1.14
220274	001728	101	0.71	200	14.24	194	1.36	1420	145	0.41	1930	162	0.74	1751	2.20	18.92	8.53	1.16
220276	001730	147	3.93	95	12.28	217	2.69	983	149	1.45	1246	172	1.88	1153	2.34	48.08	5.61	1.16
220195	001460	191	1.34	197	14.07	156	1.23	625	122	0.57	864	133	0.80	780	1.91	21.59	4.03	1.17
220248	001605	207	1.80	177	13.69	432	2.28	863	185	1.52	883	270	1.78	875	3.88	48.06	4.37	1.13
220303	001860	298	3.51	159	12.50	211	2.09	700	164	1.27	694	180	1.55	696	2.58	41.85	3.95	1.29
220324	000824	116	3.21	137	12.78	145	1.10	656	90	0.95	683	109	1.00	673	1.48	25.58	3.31	1.17
220358	001898	102	1.22	151	14.11	197	1.80	649	144	0.47	889	162	0.93	804	2.20	23.78	3.66	1.09
220107	001231	179	3.43	86	12.10	363	1.52	1233	327	0.78	1832	339	1.03	1622	3.87	22.09	5.74	1.01
220310	001796	35	0.09	76	12.79	244	1.67	1120	148	0.44	1339	181	0.87	1262	2.06	18.66	5.64	1.27
220066	001120	150	6.07	87	10.95	240	1.68	2223	205	1.56	2577	217	1.60	2453	2.26	31.30	7.66	0.97
220204	001512	76	0.23	286	12.73	222	1.26	1294	168	0.74	1650	186	0.92	1525	1.91	17.76	4.93	1.02
220278	001743	144	2.55	122	13.35	226	0.93	1610	185	0.69	1879	199	0.77	1784	2.29	16.73	7.38	1.16
220279	001744	183	2.10	138	13.40	185	1.05	987	145	0.72	1159	158	0.83	1098	1.83	18.03	4.52	1.16
220311	001801	141	3.34	155	12.69	201	1.01	2170	[illegible]	1.04	2278	187	1.02	2240	1.92	19.69	9.14	1.29
220244	001601	168	6.69	98	11.05	250	3.47	805	[illegible]	2.81	1148	192	3.04	1027	2.42	72.41	4.90	1.22

HOUSTON — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	-----CYCLE 7 IDLE----- HC	CO	NO	CO2	---CYCLES 1-4--- HC	CO	NO	---CYCLES 6-7--- HC	CO	NO	---COMPOSITE---- HC	CO	NO	-----MASS EQUIVALENT---- HC	CO	NOXC	HUCF
220291	001793	1643	8.94	78	8.48	1187	4.74	66	1025	3.39	713	1081	3.86	486	13.71	91.95	2.44	1.29
220208	001553	112	0.30	188	14.61	286	2.02	1012	176	0.40	1555	214	0.96	1364	2.71	22.86	6.18	1.16
220330	001882	466	5.22	67	10.53	498	3.02	424	366	1.97	510	412	2.33	479	4.70	49.98	2.20	1.31
220340	001873	153	3.92	91	12.43	266	2.44	860	168	0.98	1200	202	1.49	1081	2.56	35.49	4.81	1.14
220375	001881	48	0.30	131	14.04	206	1.12	339	170	0.68	665	182	0.83	550	2.07	17.80	2.52	1.31
220118	001258	133	4.19	129	12.48	200	1.75	963	129	1.06	1162	153	1.30	1092	2.08	33.25	4.55	0.99
220212	001559	58	0.20	271	14.23	172	2.02	730	109	0.28	1202	131	0.88	1036	1.77	22.50	4.46	1.03
220254	001611	205	6.21	79	11.04	291	3.11	698	195	1.90	1030	227	2.32	913	3.09	59.34	4.67	1.22
220293	000823	241	5.84	87	11.11	290	1.81	1400	207	1.65	1687	236	1.70	1586	3.21	43.48	8.56	1.29
220299	001808	189	4.66	57	10.78	230	1.23	1166	174	1.03	1314	193	1.09	1262	2.88	30.61	6.37	1.10
220341	001868	138	1.60	81	11.06	240	1.72	920	179	0.96	1145	200	1.22	1066	2.99	34.28	5.53	1.13
220091	001206	356	9.10	74	9.70	301	3.24	1173	181	1.78	1629	222	2.29	1469	2.56	49.76	4.97	0.95
220290	000851	326	2.53	116	12.92	256	0.85	1243	211	0.49	1280	226	0.61	1267	2.61	13.25	5.90	1.31
220329	000816	74	0.86	109	13.95	249	1.46	697	158	0.52	778	189	0.84	749	1.96	16.43	2.90	1.21
220360	001891	223	4.02	79	11.94	404	2.99	965	365	1.38	1179	378	1.94	1104	3.93	37.95	4.31	1.22
220377	001894	118	1.41	82	13.76	297	1.71	609	260	1.06	569	272	1.28	582	2.83	25.04	2.31	1.24
220172	001387	285	4.69	81	11.80	612	4.50	604	400	1.38	974	474	2.47	844	4.94	48.33	2.61	0.96
220182	001418	294	8.52	47	8.80	444	3.03	540	419	1.89	704	427	2.28	646	4.45	44.61	2.24	1.09
220198	001476	178	2.78	98	13.15	364	1.78	764	383	1.79	864	376	1.78	829	3.91	34.82	3.09	1.17
220218	001570	201	4.31	103	12.11	122	1.82	731	71	0.79	947	88	1.15	871	1.02	24.98	3.35	1.08
220237	001594	129	0.11	327	13.71	131	0.56	1209	91	0.14	1104	105	0.28	1140	1.20	6.08	4.65	1.15
220271	001667	157	3.38	83	12.67	295	2.04	496	225	1.14	640	249	1.45	589	2.59	28.36	2.20	1.17
220277	001731	332	8.74	31	9.26	489	2.41	1036	501	1.53	1438	497	1.83	1297	5.67	39.26	5.28	1.16
220300	000844	101	0.31	252	14.05	80	0.62	523	56	0.17	606	64	0.32	576	0.74	6.95	2.62	1.28
220320	001810	359	5.53	62	11.06	325	2.83	580	311	1.90	494	315	2.22	524	3.59	47.62	2.02	1.10
220342	001869	306	5.73	108	11.32	247	2.14	1809	214	1.15	2296	226	1.50	2125	2.62	32.60	9.63	1.27
220346	000852	250	5.76	66	10.48	120	1.12	719	98	1.02	698	105	1.05	705	1.33	25.00	3.27	1.19
220350	001853	365	7.51	71	10.04	255	2.16	697	215	1.29	1101	228	1.59	959	2.63	34.55	4.22	1.24
220351	001854	300	7.28	58	9.68	215	2.01	726	158	1.21	737	177	1.48	733	2.24	35.25	3.62	1.27
220378	002054	377	5.84	62	11.03	598	1.44	1544	588	0.87	1957	591	1.06	1812	6.75	22.73	7.37	1.16
220001	000924	222	2.52	154	12.83	217	2.05	1094	176	0.87	1368	190	1.28	1272	2.19	27.81	4.99	1.10
220028	001056	322	6.95	70	10.34	255	2.37	680	226	1.94	843	236	2.09	785	2.73	45.41	2.65	0.95
220030	001058	278	5.51	68	11.02	384	1.63	1063	357	1.59	1152	366	1.60	1120	3.81	31.30	3.40	0.95
220037	001072	291	4.02	104	11.93	311	2.52	768	188	0.93	1241	231	1.48	1075	2.67	32.16	3.69	0.96
220042	001084	170	2.42	248	13.23	247	3.41	801	129	0.79	1227	170	1.70	1077	1.96	36.94	3.74	0.98
220043	001085	177	1.68	263	13.39	253	2.84	652	133	0.59	1114	174	1.37	952	2.01	29.77	3.27	0.96
220044	001086	112	0.50	334	13.27	145	1.78	673	95	0.22	1248	112	0.76	1046	1.29	16.51	3.55	0.95
220045	001087	180	2.38	166	13.35	199	2.13	743	115	0.50	1061	144	1.07	949	1.66	23.24	3.29	0.97
220065	001119	262	2.50	107	12.95	252	2.08	599	172	0.88	742	200	1.30	691	2.31	28.25	2.46	1.00
220067	001121	138	0.78	324	13.75	201	1.52	1139	124	0.35	1373	150	0.75	1291	1.73	16.29	4.52	0.98
220076	001171	240	2.81	149	12.99	297	3.28	908	189	0.84	1280	226	1.69	1149	2.61	36.72	4.51	1.10
220133	001315	198	4.34	99	12.18	292	2.68	1045	225	1.34	1409	248	1.80	1281	2.58	35.21	4.28	1.04
220175	001395	5053	9.73	78	6.19	1394	4.65	572	1520	3.55	818	1475	3.93	731	15.37	76.90	2.19	0.94
220179	001413	167	3.49	83	13.09	235	1.27	918	211	1.09	1042	219	1.15	998	2.28	22.49	3.23	1.01
220210	001556	288	6.17	70	11.02	411	2.47	903	335	1.79	1321	361	2.02	1174	3.75	39.52	3.77	1.00
220321	002100	336	6.15	80	10.96	263	2.49	489	181	1.78	565	209	2.02	538	2.41	43.90	1.97	1.03
220331	000814	610	9.05	31	8.62	656	4.05	448	608	3.77	547	624	3.86	513	6.50	75.52	1.80	1.10
220332	002091	403	8.50	64	9.85	340	2.59	1009	269	2.65	1089	293	2.62	1060	3.39	56.93	3.92	1.04
220343	001890	323	5.52	74	11.20	376	1.94	788	359	1.64	790	364	1.74	789	3.79	34.04	3.15	1.25
220361	001879	2017	8.41	50	8.82	1057	2.92	600	926	2.40	921	971	2.58	808	10.12	50.48	3.02	1.17

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HOUSTON 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	IDLE HC	IDLE CO	IDLE NO	IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
220380	002080	266	4.24	94	12.05	341	1.91	822	296	1.66	988	311	1.74	929	3.24	34.04	3.33	1.12
220381	002064	463	9.32	53	9.14	392	3.75	585	311	2.44	797	339	2.89	722	3.92	62.80	3.02	1.18
220014	000953	223	3.53	106	12.62	358	6.62	483	188	1.09	1514	247	3.02	1153	3.36	77.25	4.68	0.97
220090	001204	201	2.33	148	13.32	280	3.13	1154	165	0.39	1896	205	1.34	1636	2.79	34.27	6.56	0.96
220097	001212	155	1.08	368	14.20	234	2.41	1263	142	0.57	1794	174	1.21	1608	2.37	30.95	6.42	0.95
220099	001214	272	6.92	87	10.29	260	2.81	1279	197	1.39	1427	219	1.88	1375	2.98	48.08	5.45	0.95
220141	001331	231	2.15	221	13.33	294	3.50	1372	196	0.53	1916	230	1.56	1725	3.13	39.90	6.85	0.95
220158	001359	201	3.81	87	12.87	331	1.83	1120	301	1.62	1434	311	1.69	1324	3.24	33.06	3.99	0.94
220163	001366	151	0.10	116	12.49	301	0.69	870	364	0.29	827	341	0.42	842	3.55	8.21	2.52	0.93
220169	001379	260	4.32	132	12.00	439	6.58	448	255	3.66	652	319	4.68	580	4.34	119.71	2.35	0.97
220174	001390	267	5.12	94	11.53	277	2.10	1109	239	1.05	1678	252	1.41	1478	3.43	36.06	6.06	0.98
220196	001456	258	4.24	106	12.24	306	3.42	898	238	0.91	1546	261	1.78	1319	3.31	42.40	6.22	1.21
220199	001488	366	7.53	67	10.10	331	4.37	675	272	2.03	927	293	2.84	838	3.71	67.65	3.23	0.99
220220	001572	468	7.14	75	10.07	380	3.30	969	346	2.07	1478	358	2.50	1299	4.86	63.94	6.12	1.12
220224	001577	365	6.78	103	11.00	348	3.63	1000	250	1.18	1407	283	2.03	1264	3.85	51.92	5.75	1.08
220239	001596	113	0.21	146	13.95	201	0.58	1308	195	0.22	1400	197	0.34	1367	2.27	7.38	5.77	1.19
220242	001599	272	6.03	74	11.07	314	5.02	684	238	2.48	989	264	3.36	882	3.59	85.94	4.40	1.19
220265	001641	123	0.60	307	14.39	182	1.03	1421	151	0.71	1469	161	0.82	1452	2.19	20.97	7.21	1.18
220272	001669	224	4.43	110	11.86	248	2.87	873	206	1.97	1053	220	2.28	989	2.99	58.32	5.11	1.23
220297	001795	458	4.70	69	11.40	364	1.50	922	415	1.53	1066	397	1.51	1015	4.87	34.79	4.87	1.27
220371	001887	266	3.42	102	12.52	279	1.94	791	250	2.12	635	260	2.05	689	3.54	52.44	3.54	1.23
220018	000944	238	8.40	81	9.36	222	3.82	773	152	2.76	968	176	3.13	899	2.39	80.06	3.57	0.95
220019	000945	362	6.07	92	10.37	408	5.39	729	248	2.24	1325	304	3.34	1116	4.14	85.43	4.44	0.95
220029	001057	206	4.24	113	12.01	234	3.64	695	154	1.60	998	182	2.31	891	2.47	59.08	3.55	0.95
220032	001063	182	3.27	146	12.56	236	2.00	1280	178	1.02	1392	198	1.36	1352	2.29	29.55	4.60	0.96
220034	001067	320	8.98	61	8.99	328	3.03	1008	266	2.56	1130	287	2.72	1087	3.32	59.10	3.70	0.96
220038	001073	235	2.15	700	13.42	267	3.35	1397	195	1.41	1735	220	2.08	1616	2.54	45.19	5.58	0.97
220051	001093	460	7.97	68	9.71	434	5.12	726	291	2.48	1339	341	3.40	1124	4.64	86.97	4.58	0.97
220057	001101	235	6.33	100	10.42	245	3.38	743	186	2.76	859	206	2.97	818	2.80	75.96	3.53	1.03
220062	001113	213	3.38	155	12.38	209	1.66	1176	180	1.09	1330	190	1.28	1276	2.41	30.49	4.87	0.98
220064	001118	208	5.48	91	11.05	303	2.51	912	310	1.60	1219	307	1.91	1111	4.18	48.85	4.61	0.99
220086	001200	237	5.27	93	11.79	319	3.81	1075	214	2.05	1335	250	2.66	1243	3.40	68.04	4.93	0.95
220100	001215	284	6.23	98	11.25	268	2.43	1123	195	1.61	1389	220	1.89	1295	2.79	45.01	4.86	0.96
220138	001324	245	7.20	90	10.05	411	6.20	534	176	2.11	1108	258	3.54	907	3.27	84.32	3.68	1.04
220157	001358	279	5.95	115	10.78	304	4.04	1240	221	2.20	1657	250	2.84	1511	3.40	72.64	5.95	0.94
220184	001429	193	5.11	112	11.45	240	4.11	669	188	2.97	827	206	3.36	771	2.61	80.03	3.39	1.13
220240	001597	178	3.57	135	12.89	199	2.55	621	142	1.69	721	161	1.99	685	2.04	47.40	3.16	1.19
220247	001604	264	5.88	99	10.81	265	2.75	1048	217	2.42	1074	233	2.53	1064	2.95	60.26	4.70	1.13
220250	001607	226	4.17	100	12.02	279	3.05	661	190	1.73	869	221	2.19	796	2.80	52.17	3.71	1.19
220258	001623	501	10.03	35	8.36	385	3.54	754	343	3.19	865	357	3.31	826	4.85	84.66	3.66	1.06
220259	001625	201	4.25	95	12.21	216	2.16	672	155	1.71	761	176	1.87	730	2.40	47.83	3.32	1.09
220261	001628	194	0.90	246	14.24	219	1.19	1357	187	0.69	1470	198	0.86	1430	2.69	21.99	6.57	1.10
220280	001747	309	5.99	73	10.85	267	1.76	895	198	1.67	904	222	1.70	900	3.02	43.48	4.47	1.18
220339	002010	370	3.46	121	12.48	523	3.96	836	316	2.13	1080	440	2.77	994	5.99	70.85	5.22	1.25
220357	001888	339	4.36	91	11.87	282	0.94	1034	281	0.97	1136	281	0.94	1100	3.82	24.04	5.86	1.27
220367	001878	313	6.68	85	10.42	340	3.42	855	288	3.02	953	306	3.16	918	3.88	75.27	4.19	1.17
220318	000836	326	7.76	46	9.41	206	1.96	381	197	2.34	513	200	2.20	466	2.53	52.40	2.01	1.11
220352	001945	214	4.86	58	8.51	147	1.07	332	138	1.44	409	141	1.31	382	1.78	31.20	1.88	1.27
220366	001900	292	2.55	80	12.30	233	0.66	804	222	0.86	881	225	0.79	854	2.85	18.81	3.89	1.17
220356	001883	773	10.09	30	8.12	391	4.04	718	402	3.47	645	398	3.28	670	5.42	83.90	3.35	1.20

HOUSTON 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CO	NO	CO2	CYCLES 1-4 HC	CO	NO	CYCLES 6-7 HC	CO	NO	COMPOSITE HC	CO	NO	MASS EQUIVALENT HC	CO	NOXC	HUCF
220072	001140	264	3.46	113	11.06	275	2.11	794	225	0.99	1332	242	1.38	1143	3.07	32.87	4.26	0.95
220083	001196	272	2.31	192	13.52	274	2.23	855	178	0.86	1103	211	1.33	1016	2.67	31.67	3.77	0.95
220085	001198	172	2.48	164	14.05	149	1.21	547	122	0.84	685	131	0.96	636	1.78	24.55	2.53	0.95
220094	001209	112	0.35	458	14.53	166	2.07	567	74	0.26	792	106	0.89	713	1.34	21.19	2.71	0.98
220095	001210	239	4.89	123	11.79	385	4.15	844	199	1.77	1267	264	2.60	1118	3.34	61.93	4.16	0.95
220096	001211	312	8.13	74	9.77	273	3.48	864	185	2.12	1386	215	2.59	1203	2.72	61.69	4.45	0.95
220166	001373	521	7.82	98	9.72	405	4.04	1238	319	2.33	1713	349	2.92	1546	4.42	69.56	5.55	0.92
220191	001446	331	4.83	101	12.04	236	1.32	838	225	1.36	1328	228	1.34	1156	3.10	34.27	5.44	1.12
220292	000831	567	8.76	53	9.11	402	2.50	1019	384	3.19	813	390	2.94	885	4.94	70.03	4.26	1.24
220305	001794	298	5.26	101	11.38	203	1.89	534	169	1.33	788	180	1.52	699	2.28	36.20	3.45	1.27
220084	001197	148	0.98	249	13.21	192	1.56	769	123	0.46	1087	147	0.84	975	2.00	21.48	3.89	0.95
220103	001224	245	5.46	94	10.44	244	2.98	633	179	2.04	936	201	2.36	829	2.73	60.36	3.34	0.96
220145	001338	171	0.27	400	14.36	230	1.91	1011	163	0.26	1386	186	0.83	1254	2.53	21.23	5.31	1.01
220302	001800	166	0.49	195	13.84	182	0.48	755	193	0.45	863	189	0.46	825	2.57	11.76	4.50	1.31
220304	001864	311	6.76	91	10.34	280	3.27	646	243	3.39	660	255	3.34	655	3.47	85.43	3.18	1.16
220319	000819	297	3.01	103	12.40	238	1.39	441	224	1.39	462	228	1.38	454	3.10	35.30	2.32	1.22
220104	001227	655	9.42	34	8.59	376	4.28	435	454	3.67	568	426	3.88	521	5.80	99.24	2.11	0.97
220128	001307	238	0.99	615	13.65	201	2.16	586	143	0.89	1121	163	1.33	933	2.22	34.01	3.85	0.98
220135	001319	385	7.23	72	10.26	230	2.76	983	224	1.82	1464	226	2.14	1295	3.07	54.73	5.20	0.96
220139	001328	221	3.56	102	12.19	191	1.47	944	173	0.91	1019	179	1.10	992	2.43	28.13	4.23	1.02
220153	001352	647	3.98	61	11.29	370	1.38	360	410	1.46	417	396	1.43	397	4.52	30.67	1.44	1.03
220214	001562	307	6.22	73	10.33	284	1.43	946	286	1.76	1216	285	1.64	1121	3.61	39.06	4.55	1.04
220363	001902	128	1.10	75	13.59	146	0.36	291	128	0.29	442	134	0.31	389	1.82	7.92	2.12	1.31
220364	001885	201	2.74	60	12.85	218	0.96	395	216	0.71	542	216	0.79	490	2.74	18.81	2.32	1.22
220033	001066	135	0.49	255	13.13	144	1.52	410	91	0.31	690	109	0.73	592	1.56	19.71	2.52	0.97
220338	001906	225	5.01	57	11.67	243	2.18	257	188	1.47	273	207	1.71	267	2.81	43.73	1.47	1.32
220105	001229	181	4.35	108	12.37	242	2.65	869	166	1.73	981	192	2.05	941	2.43	48.83	3.65	0.99
220143	001336	417	4.65	121	11.98	295	1.97	1396	264	1.27	1579	274	1.51	1514	3.47	35.96	5.87	0.99
220146	001339	761	5.45	67	10.90	658	3.08	746	565	2.71	943	597	2.83	874	7.57	67.41	3.37	0.99
220149	001345	172	2.37	107	12.91	157	1.89	626	121	1.04	731	133	1.33	694	1.68	31.67	2.78	1.03
220155	001356	814	10.40	45	7.67	588	3.28	955	510	3.52	926	537	3.43	936	6.81	81.70	3.89	1.07
220160	001361	227	7.34	81	10.13	168	2.77	614	133	2.44	674	145	2.55	653	1.83	60.74	2.45	0.97
220165	001370	94	0.54	193	14.22	101	0.99	716	71	0.42	803	81	0.61	772	1.02	14.52	2.98	0.99
220188	001438	139	1.65	118	13.37	182	1.98	520	133	0.99	756	150	1.33	673	2.04	34.01	2.96	1.05
220256	001614	220	3.35	93	12.92	143	0.71	455	136	0.67	515	138	0.68	493	1.74	16.19	2.26	1.17
220144	001337	167	2.33	124	12.58	153	0.87	987	120	0.64	1320	131	0.72	1203	1.78	18.41	5.09	1.01
220181	001415	197	1.17	110	13.29	178	1.06	848	124	0.46	1110	142	0.67	1018	2.04	18.09	4.82	1.07
220273	000679	277	3.31	89	12.31	241	1.45	658	191	1.12	831	208	1.23	770	2.99	33.22	3.90	1.14
220315	001802	60	0.22	92	13.12	88	0.64	312	40	0.44	295	56	0.51	300	0.80	13.76	1.73	1.31
220372	001893	93	0.96	127	13.72	69	0.50	600	50	0.41	580	56	0.44	587	0.80	11.87	3.05	1.18
220106	001230	199	2.37	105	13.44	151	1.07	799	107	0.60	829	122	0.76	818	1.54	18.10	3.17	0.99
220177	001410	232	5.63	97	11.18	219	1.41	959	162	1.72	722	181	1.61	804	2.29	38.34	3.26	1.04
220180	001414	183	0.77	160	13.11	238	0.79	1161	205	0.30	1560	216	0.47	1420	2.74	11.19	5.78	1.04
220119	001262	80	0.90	122	14.56	85	1.23	550	49	0.37	638	61	0.67	607	0.87	18.09	2.56	0.95
220187	001435	317	3.53	108	12.10	369	2.29	856	256	1.65	938	295	1.87	909	4.24	50.49	4.09	1.02
220323	000811	122	2.32	83	12.75	140	1.92	737	99	0.94	837	113	1.28	801	1.62	34.56	3.99	1.13
220344	001892	139	2.28	101	12.73	129	1.44	784	108	1.05	877	115	1.18	844	1.65	31.85	4.46	1.19
220369	001871	120	1.38	132	13.17	102	1.31	521	63	0.65	690	76	0.88	630	1.09	23.75	3.06	1.10
220015	000955	193	1.76	60	12.09	284	3.00	740	303	1.55	1041	296	2.05	935	3.75	48.83	3.49	0.96
220046	001088	195	3.03	102	12.80	227	2.09	1085	182	0.84	1545	197	1.27	1383	2.49	30.24	4.97	0.92

HOUSTON — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
220048	001090	288	10.88	44	8.19	355	4.28	809	239	3.59	1143	279	3.83	1026	4.01	103.42	4.33	0.95
220053	001095	172	4.88	102	11.53	218	2.60	980	120	1.33	1424	154	1.77	1268	2.21	47.79	5.43	0.97
220069	001129	255	7.36	74	9.61	217	2.42	1158	175	1.68	1468	189	1.93	1359	2.71	52.11	6.27	1.04
220301	001872	339	7.00	132	10.12	243	2.01	955	226	1.40	1198	231	1.61	1112	3.32	43.47	6.40	1.30
220049	001091	165	5.78	102	10.98	402	5.33	630	141	2.41	1029	232	3.43	889	2.94	81.70	3.34	0.96
220050	001092	211	5.89	89	10.92	253	3.53	733	161	2.25	1042	193	2.69	933	2.44	64.07	3.51	0.96
220052	001094	285	7.27	59	10.27	260	2.44	762	204	2.06	996	223	2.19	914	2.82	52.17	3.48	0.97
220055	001098	240	7.10	76	10.15	269	3.49	560	202	2.79	736	225	3.03	674	2.85	72.18	2.57	0.98
220056	001099	317	9.79	43	8.42	282	4.06	531	219	3.69	660	241	3.81	614	3.05	90.75	2.34	0.98
220075	001153	276	9.14	60	10.03	507	6.10	413	188	3.28	684	299	4.26	589	3.79	101.47	2.46	1.07
220134	001316	218	5.94	94	10.56	310	4.57	512	201	2.93	868	239	3.50	743	3.03	83.37	3.06	1.06
220003	000931	141	0.87	120	13.07	158	0.84	1497	135	0.29	1813	143	0.48	1702	2.05	12.95	7.30	0.97
220035	001068	142	0.97	173	13.67	185	1.43	1131	126	0.37	1605	146	0.74	1439	2.09	19.98	6.08	0.95
220058	001102	188	4.89	77	10.82	141	2.25	835	121	1.43	1163	127	1.71	1048	1.82	46.17	4.47	0.96
220060	001105	210	5.13	92	11.78	225	4.59	700	122	1.05	1207	158	2.28	1029	2.27	61.56	4.36	0.96
220061	001106	132	2.11	114	11.66	293	6.65	728	143	0.84	1857	195	2.87	1461	2.80	77.49	6.20	0.96
220068	001122	206	4.25	79	12.10	160	2.09	1140	127	0.87	1624	138	1.29	1454	1.98	34.83	6.30	0.98
220070	001130	125	0.98	174	13.51	164	1.89	1029	122	0.45	1412	136	0.95	1277	1.95	25.65	5.49	0.97
220077	001175	261	4.06	82	12.31	205	2.32	898	177	1.19	1193	186	1.58	1089	2.67	42.66	5.16	1.07
220078	001176	143	0.98	131	14.64	244	2.07	1447	166	0.33	1872	193	0.93	1723	2.77	25.11	8.29	1.09
220079	001190	171	2.01	98	13.27	199	1.75	1056	137	0.66	1795	158	1.04	1211	2.27	28.08	5.26	0.98
220122	001288	137	1.05	150	14.10	162	1.92	932	137	0.46	1387	145	0.97	1227	2.08	26.18	5.84	1.08
220089	001203	145	3.58	154	12.78	151	2.05	728	118	1.02	1653	129	1.38	1329	1.93	38.77	5.85	0.96
220123	001302	206	6.44	98	10.71	195	2.31	1311	171	2.16	1547	179	2.21	1464	2.67	62.09	6.60	0.98
220124	001303	190	3.58	112	12.63	207	1.48	1882	177	0.99	2052	187	1.16	1992	2.79	32.58	8.98	0.98
220125	001304	183	5.73	117	11.38	114	1.13	1132	118	1.37	1379	116	1.28	1292	1.73	35.96	5.89	0.99
220126	001305	178	4.05	107	12.24	197	1.62	1623	152	1.05	2041	167	1.24	1894	2.49	34.83	8.49	0.97
220129	001311	117	1.78	141	13.29	177	1.64	1378	132	0.67	2039	147	1.00	1807	2.19	28.09	8.41	1.01
220130	001312	216	5.69	98	11.34	167	2.05	865	163	1.63	1290	164	1.77	1141	2.45	49.72	5.30	1.01
220132	001314	205	5.67	93	11.40	143	1.48	576	119	1.42	798	127	1.44	720	1.90	40.45	3.38	1.02
220073	001138	124	0.79	148	12.24	228	1.71	1569	152	0.57	1844	178	0.96	1747	1.56	15.89	4.61	0.97
220080	001191	313	1.12	86	11.71	372	1.73	879	220	0.44	955	273	0.89	928	2.16	13.25	2.22	0.98
220137	001323	183	0.35	101	14.32	239	1.71	1294	157	0.59	1196	185	1.00	1230	1.46	14.89	2.93	0.98
220025	001043	362	0.94	44	6.71	790	1.18	1482	793	1.07	1659	791	1.10	1597	7.32	19.12	4.41	0.97
220026	001045	246	1.96	42	6.25	383	1.12	1896	360	0.94	1788	368	1.00	1825	2.66	13.58	3.94	0.97
220047	001089	452	7.62	34	4.70	501	4.43	1404	298	3.08	1789	369	3.55	1654	2.66	48.21	3.51	0.95
220053	001103	69	0.36	69	8.14	295	1.16	1834	429	0.73	1846	403	0.88	1841	2.91	11.94	3.94	0.96
220092	001207	209	5.94	62	7.37	459	2.65	1636	458	2.15	1683	458	2.32	1666	3.31	31.50	3.62	0.98
220173	001388	229	2.12	76	9.47	476	2.16	1311	387	1.15	1114	418	1.50	1182	3.02	20.37	2.58	0.98
220183	001419	246	5.01	75	8.35	558	1.62	1574	428	1.51	1758	473	1.54	1693	3.42	20.91	4.17	1.11
220189	001443	151	2.35	39	7.78	521	1.13	1509	501	1.20	1474	507	1.17	1486	4.69	20.33	5.19	1.23
220190	001445	202	4.82	89	10.50	344	1.94	1743	230	1.12	1893	269	1.40	1840	1.94	19.01	4.52	1.10
220197	001466	152	2.81	58	10.16	564	1.77	1209	443	1.27	1250	464	1.44	1235	3.35	19.55	3.20	1.16
220200	001471	130	2.56	66	10.18	393	1.44	1275	359	1.02	1374	381	1.16	1339	2.75	15.75	3.08	1.03
220205	001524	173	0.71	69	8.80	508	1.65	1444	477	0.93	1385	487	1.18	1405	3.51	16.02	3.66	1.17
220206	001521	371	5.31	39	4.67	701	3.18	1185	658	2.96	1176	672	3.03	1179	4.86	41.15	3.00	1.14
220295	000827	290	8.81	58	7.78	370	2.76	1743	300	3.21	1584	324	3.05	1639	2.59	45.90	4.75	1.17
220314	001806	244	4.42	86	7.85	378	1.89	1531	356	1.74	1637	363	1.82	1599	2.90	27.39	4.91	1.25
220317	001877	180	3.33	92	11.04	333	1.31	2313	258	1.27	2040	284	1.35	2135	2.27	20.31	6.16	1.17
220373	001911	230	3.91	89	11.17	272	1.69	1494	238	1.68	1244	244	1.71	1331	1.76	23.22	3.66	1.24

TABLE B-3

Los Angeles

LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
320098	100248	118	1.08	258	13.63	173	0.99	1674	154	0.40	1973	160	0.60	1968	2.30	16.20	7.10	0.96
320171	100342	229	3.24	80	9.05	212	4.07	833	172	3.18	1120	186	3.49	1019	2.35	83.13	3.32	0.83
320178	100366	166	2.93	128	12.65	128	1.07	1125	92	0.73	1184	104	0.84	1163	1.31	20.00	4.16	0.92
320280	100472	191	5.90	158	10.38	188	2.62	1024	145	1.54	1417	150	1.91	1279	2.02	45.50	4.77	0.96
320415	100699	301	8.33	88	9.53	262	2.69	1184	200	2.09	1517	221	2.29	1400	2.80	54.55	5.09	0.93
320164	100367	131	3.31	170	12.36	166	2.43	1081	105	1.33	1312	126	1.71	1231	1.59	40.73	4.41	0.92
320259	100424	242	7.45	104	10.11	262	3.45	985	186	2.58	1247	212	2.88	1155	2.68	68.60	3.91	0.87
320380	100703	215	6.27	165	10.89	227	3.24	1043	177	2.43	1281	194	2.71	1197	2.46	64.55	4.70	1.00
320403	100828	146	2.24	165	13.13	254	3.89	1101	123	0.32	1563	169	1.35	1401	2.13	46.45	5.71	1.04
320457	101462	190	5.19	127	11.59	225	2.32	1294	149	1.75	1322	174	1.94	1280	2.20	46.21	4.78	0.96
320458	101442	139	3.08	139	12.80	202	2.53	891	120	1.32	1083	148	1.74	1015	1.87	41.45	3.75	0.95
320486	101837	121	2.38	153	12.99	158	1.75	1057	111	0.99	1096	127	1.25	1075	1.61	29.77	3.88	0.92
320492	102047	132	1.69	158	13.77	136	1.22	1076	116	0.64	1252	123	0.84	1130	1.56	20.00	4.75	1.02
320022	100058	265	4.81	121	11.51	212	1.56	1765	183	1.16	1910	194	1.30	1853	2.79	35.11	8.14	0.93
320103	100504	184	2.23	173	12.83	138	0.68	1847	128	0.56	1683	131	0.6[illegible]	740	1.88	16.19	7.45	0.97
320234	100441	150	2.00	180	13.19	161	1.71	1352	112	0.56	1526	129	0.96	1465	1.85	25.32	5.37	0.92
320264	100492	207	2.65	158	12.93	148	1.23	1509	156	1.03	1549	153	1.09	1531	2.20	29.42	6.71	1.00
320314	100 50	130	1.33	200	13.72	108	0.75	1431	83	0.34	1724	91	0.48	1621	1.30	12.75	6.86	0.96
320320	100576	288	6.13	118	10.56	252	3.76	1281	176	1.37	1826	205	2.20	1635	2.94	50.40	7.17	0.99
320331	100601	168	2.58	125	12.94	183	2.56	1042	123	0.63	1679	143	1.30	1456	2.05	35.10	6.27	0.97
320332	101362	153	1.60	141	13.53	113	1.38	1436	95	0.42	1803	101	0.75	1674	1.45	20.25	7.12	0.95
320360	100867	249	3.45	150	12.36	220	1.46	1311	171	1.06	1551	188	1.20	1466	2.70	32.40	5.99	0.92
320366	100706	151	1.24	218	13.58	152	0.79	1615	121	0.38	1742	131	0.52	1637	1.88	14.03	7.67	0.99
320083	100215	151	3.63	176	12.25	155	1.99	1307	128	0.96	1833	137	1.32	1648	2.05	37.01	7.23	0.95
320129	100299	120	1.43	261	13.34	115	0.81	1527	104	0.45	2102	107	0.61	1959	1.60	17.14	8.57	0.95
320169	100298	189	5.73	112	11.00	192	2.36	1237	138	1.73	1292	146	1.98	1272	2.19	55.63	5.53	0.94
320205	100402	212	4.59	125	12.11	170	2.06	1313	147	1.66	1740	162	1.81	1590	2.42	39.61	7.29	0.99
320266	100724	234	6.88	131	9.83	177	1.90	1537	170	1.87	1855	172	1.88	1743	2.57	52.81	7.53	0.94
320296	101239	147	2.64	150	11.29	177	1.94	1333	140	0.98	1756	152	1.31	1607	2.27	36.80	7.30	0.97
320348	100603	202	4.22	137	11.97	172	1.45	1941	110	1.12	1220	114	1.23	1157	1.70	34.55	5.07	0.95
320404	101071	132	2.85	83	11.04	133	1.43	1352	127	1.12	1607	129	1.22	1517	1.93	34.27	6.43	0.92
320502	104123	258	8.85	161	9.64	159	1.35	1485	172	2.35	1537	184	2.20	1557	2.36	59.53	6.17	0.89
320153	100388	140	0.47	203	11.76	252	1.66	2058	164	0.33	2211	174	0.79	2160	1.71	13.07	5.30	0.90
320217	100612	145	0.14	81	10.17	226	0.73	1227	156	0.35	1005	140	0.48	1141	1.42	7.15	2.70	0.97
320343	101048	62	0.41	109	7.57	208	1.02	1969	130	0.38	2065	137	0.60	2031	1.39	9.93	5.12	0.93
320007	100032	142	2.37	124	10.82	239	1.55	2583	171	0.97	2430	174	1.17	2485	1.56	17.61	6.30	1.03
320014	100043	82	1.45	139	11.96	337	0.96	2057	378	0.76	1652	384	0.83	1733	2.77	11.27	3.73	0.93
320017	100052	249	8.28	104	7.20	967	4.04	1666	495	2.05	1987	660	2.74	1874	4.76	37.07	4.02	0.97
320034	100257	132	3.52	102	10.30	245	2.24	1751	212	1.52	1834	223	1.77	1804	1.61	23.35	3.32	0.95
320039	100198	204	4.62	109	9.94	245	2.32	1877	203	1.73	1654	217	1.93	1732	1.56	26.11	3.77	0.98
320045	100147	135	5.61	93	9.39	542	1.31	2147	569	1.70	1997	559	1.77	1964	5.17	30.71	5.34	0.94
320055	100199	253	0.12	146	13.18	246	1.14	1754	218	0.63	1730	227	0.80	1738	1.64	10.82	3.78	0.98
320091	100209	130	5.09	123	10.66	272	2.67	1838	165	2.11	1686	202	2.30	1739	1.46	31.12	3.60	0.92
320095	100201	167	3.42	105	12.54	236	1.3[illegible]	2542	226	1.13	2490	229	1.18	2508	2.12	20.48	7.23	1.01
320097	100148	109	3.02	123	10.67	283	1.44	1961	168	0.74	1241	208	1.13	1242	1.50	15.29	2.54	0.89
320101	100244	131	5.62	133	9.46	360	2.29	1931	315	1.66	1858	330	1.88	1883	2.38	29.64	3.69	0.88
320108	100245	96	4.09	100	10.22	281	1.53	1525	323	1.12	1320	308	1.26	1331	2.22	17.05	2.71	0.88
320130	100106	571	0.69	111	14.04	43[illegible]	1.41	2047	628	0.69	1905	560	0.94	1954	5.18	10.31	5.27	0.94
320131	100107	104	4.32	116	9.78	242	1.85	1785	373	2.14	1611	327	2.03	1671	2.36	27.46	3.59	0.94
320132	100109	113	2.87	106	10.73	264	2.[illegible]7	1951	176	1.74	1711	206	1.89	1734	1.48	25.57	3.10	0.98

LOS ANGELES — 1975 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOX	MASS EQUIVALENT MPG
320032	100089	169	0.83	342	14.10	178	1.92	919	137	0.49	1465	151	0.98	1273	1.72	23.35	4.67	0.34
320170	100360	99	0.32	468	14.09	166	1.97	911	105	0.40	1546	126	0.94	1323	1.57	22.39	4.73	0.32
320176	100366	290	1.96	131	13.96	263	3.53	1077	194	2.10	1302	218	2.60	1223	2.76	41.93	4.44	0.33
320186	100367	137	1.33	414	14.36	136	0.31	1075	103	0.51	1192	114	0.64	1151	1.44	15.24	4.19	0.31
320271	100474	193	1.99	262	12.93	275	2.39	1183	173	1.18	1620	206	1.60	1467	2.63	30.11	5.33	0.33
320318	100593	196	2.60	266	13.19	166	2.41	681	140	1.21	1063	149	1.62	929	1.89	38.58	3.52	0.37
320384	100887	322	3.62	369	13.25	323	4.05	1127	216	1.69	1714	253	2.51	1509	3.44	64.20	5.93	0.34
320413	101018	188	1.42	235	13.90	215	2.51	1133	144	0.67	1525	168	1.31	1397	2.13	31.20	4.52	0.33
320493	104115	244	4.66	155	11.87	340	6.19	795	229	2.47	1333	267	3.77	1144	3.33	90.00	4.19	0.34
320037	100168	150	2.35	245	13.03	144	2.43	848	83	0.76	1052	104	1.34	980	1.42	34.28	3.76	0.31
320094	100195	150	0.85	333	13.64	180	1.64	978	122	0.33	1385	142	0.78	1242	1.93	13.35	4.33	0.35
320209	100339	161	0.45	315	14.55	255	0.71	1454	166	0.33	1777	177	0.59	1663	2.68	15.08	6.43	0.33
320240	101314	226	3.68	177	12.39	293	3.15	874	194	1.37	1447	230	1.99	1246	3.13	50.89	5.01	0.36
320347	101343	226	4.35	138	11.86	268	3.18	976	190	1.76	1231	217	2.25	1141	2.95	57.55	4.38	0.32
320448	101340	174	1.86	190	13.39	184	1.32	973	142	0.67	1154	156	0.99	1097	2.12	22.76	4.33	0.34
320482	101514	188	4.42	113	12.03	246	4.38	422	185	2.89	622	206	3.62	552	2.80	92.59	2.31	1.00
320058	100152	1688	1.63	103	11.56	835	1.10	209	808	0.73	279	824	0.89	254	9.33	13.05	0.79	0.90
320187	100516	45	0.24	257	13.74	152	0.47	908	133	0.27	1230	167	0.33	1117	1.90	7.07	3.71	0.35
320205	100384	167	1.89	128	12.70	252	0.39	899	159	0.66	1011	174	0.77	967	2.20	10.34	3.45	0.32
320210	100395	107	0.31	263	14.29	199	1.28	919	110	0.27	1203	141	0.62	1103	1.78	14.76	4.19	0.37
320322	100579	99	0.10	178	12.26	137	0.62	605	120	0.13	1120	125	0.30	971	1.70	7.67	4.02	0.33
320370	100626	285	1.20	86	9.73	205	2.37	962	175	1.28	1285	195	1.66	1171	2.52	42.46	5.12	1.04
320425	101291	131	2.07	109	13.41	327	4.02	462	201	1.58	712	245	2.43	624	3.10	57.88	2.30	0.95
320483	101622	174	2.75	95	13.08	170	0.69	1109	144	0.63	948	153	0.85	1004	2.08	16.62	3.96	0.34
320029	100086	155	2.48	116	11.90	84	0.42	661	86	0.50	803	85	0.47	753	1.22	12.69	3.09	0.33
320306	100563	125	0.61	402	12.94	155	0.40	1535	131	0.10	1923	139	0.20	1808	1.93	5.39	8.33	1.04
320387	100798	64	0.16	336	13.75	77	0.76	666	56	0.18	956	63	0.38	854	0.90	10.26	3.64	0.37
320481	101487	183	3.57	94	12.23	97	0.70	857	103	0.72	857	100	0.71	850	1.35	18.15	3.43	0.36
320177	100374	223	4.40	126	11.33	169	1.62	724	119	1.21	812	136	1.35	781	1.72	32.15	2.62	0.86
320253	100707	131	1.48	132	13.80	113	0.98	801	93	0.73	944	99	0.81	925	1.34	20.71	3.91	1.01
320302	101285	140	2.49	154	14.24	123	1.39	941	96	1.04	990	105	1.17	972	1.33	27.85	3.93	0.32
320314	101322	91	0.25	214	13.27	166	0.36	1121	137	0.48	1175	147	0.64	1156	2.00	16.37	4.15	0.86
320342	100597	145	2.26	187	13.35	149	1.60	807	117	0.92	1028	128	1.15	951	1.62	27.39	3.71	1.00
320353	101149	223	7.74	98	9.21	209	2.61	753	150	2.57	664	170	2.58	635	2.15	61.45	2.58	0.35
320359	100641	112	1.40	193	13.82	101	0.29	961	78	0.66	920	86	0.77	899	1.17	19.69	3.55	0.34
320020	100055	167	1.46	122	13.32	161	0.31	1903	120	0.41	2007	134	0.58	1970	1.93	15.66	7.91	0.89
320113	100214	99	0.54	164	13.83	89	0.48	1227	72	0.27	1355	77	0.34	1310	1.11	7.19	5.51	0.35
320235	100425	1663	2.34	185	10.22	404	0.56	1227	632	0.73	1336	652	0.67	1316	7.93	18.09	5.26	0.93
320327	100686	74	0.10	187	13.66	94	0.20	1463	73	0.14	1725	93	0.16	1633	1.33	4.31	7.03	0.37
320335	100613	92	0.16	181	14.37	104	0.24	1796	90	0.14	1902	94	0.17	1864	1.29	4.34	7.60	0.37
320343	100689	124	1.53	107	13.92	108	0.77	1334	115	0.62	1480	112	0.67	1428	1.61	18.09	6.09	0.36
320364	100629	76	0.22	185	14.33	93	0.31	1032	70	0.19	1477	74	0.23	1371	1.06	6.20	5.46	0.93
320061	100127	132	0.78	133	14.04	240	1.28	1403	171	0.27	1762	195	0.62	1636	2.47	14.77	6.05	0.35
320163	100431	129	1.59	136	14.05	139	0.93	1073	93	0.38	1371	109	0.57	1266	1.33	13.58	4.42	0.89
320352	100625	127	0.71	195	13.73	143	0.48	1276	111	0.27	1380	122	0.34	1343	1.55	8.10	4.69	0.93
320433	101096	1572	3.23	119	10.91	97	3.04	191	933	4.34	175	888	4.20	160	10.14	90.11	0.55	0.88
320038	100171	79	1.13	158	13.70	63	1.01	773	54	0.57	851	59	0.72	825	0.85	19.44	3.38	0.93
320051	100385	143	1.56	158	13.34	139	1.74	823	121	1.47	901	127	1.56	875	1.83	42.13	3.61	0.93
320155	100392	66	0.25	169	13.74	71	0.74	712	56	0.45	772	61	0.55	764	0.88	14.85	3.14	0.93
320365	100638	50	0.15	245	13.92	85	0.68	1433	76	0.37	1642	79	0.47	1568	1.13	12.69	6.58	0.93

LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
320081	100232	162	2.81	149	13.13	173	2.87	942	96	0.53	1139	122	1.34	1109	1.66	34.28	4.04	0.87
320133	100110	294	1.49	292	13.11	315	1.26	1992	281	0.37	2444	292	0.68	2285	3.71	16.20	8.82	0.79
320157	100348	137	0.51	328	13.76	249	2.84	1532	144	0.17	2283	180	1.10	2020	2.45	28.13	7.88	0.73
320168	100503	161	0.88	216	13.60	317	1.33	1355	288	0.61	1915	208	0.86	1718	3.44	18.68	5.99	0.76
320192	100375	189	2.51	213	12.63	174	1.71	833	106	0.58	936	136	0.97	938	1.85	24.80	3.32	0.64
320202	100390	134	0.48	224	13.32	187	1.07	1580	142	0.16	1997	157	0.47	1851	2.13	12.02	7.06	0.91
320220	100535	323	8.39	107	9.44	251	1.55	1647	232	1.74	1634	238	1.67	1638	3.01	39.78	5.89	0.92
320303	100517	166	6.46	101	10.19	314	2.77	1074	293	1.95	1402	300	2.23	1297	3.12	43.43	3.90	0.75
320316	100589	232	5.63	119	10.73	58	1.83	1008	138	1.02	1208	145	1.32	1196	1.77	33.76	4.95	0.97
320317	100581	250	6.58	103	10.22	214	1.52	1644	203	1.26	1515	206	1.35	1560	2.40	34.57	6.38	0.97
320328	100618	201	2.41	206	13.66	184	1.51	1236	132	0.53	1215	150	0.87	1222	2.04	22.25	5.05	0.89
320329	100608	299	7.81	105	9.97	216	2.21	1137	185	1.87	1238	195	1.98	1202	2.65	50.64	4.96	0.98
320005	100022	203	5.05	121	11.68	196	2.79	873	144	1.71	1050	162	2.08	988	2.21	53.21	3.70	0.89
320015	100050	132	1.74	248	13.70	164	1.60	1399	124	0.66	1809	138	0.98	1665	1.60	21.30	5.79	0.96
320030	100087	202	2.22	218	13.24	177	0.79	1577	164	0.68	1702	169	0.71	1658	1.94	15.43	5.55	0.94
320031	100088	223	2.99	162	11.92	243	1.85	1156	133	1.18	1215	210	1.41	1174	2.66	33.59	4.38	0.94
320036	100153	225	3.35	211	12.44	246	2.17	1422	184	1.43	1444	205	1.73	1436	2.63	41.21	5.11	0.91
320046	100129	241	8.62	77	8.31	444	4.54	659	338	3.65	907	375	3.96	820	3.90	77.33	2.51	0.95
320093	100145	237	5.55	87	8.27	229	2.26	1380	203	2.18	1279	212	2.20	1314	2.69	52.41	4.78	0.93
320110	100218	233	6.31	113	10.13	229	2.58	1086	186	2.04	1224	201	2.22	1175	2.55	52.89	4.27	0.93
320113	100263	209	5.55	126	11.22	206	2.70	918	162	1.33	1132	177	2.19	1057	2.25	52.17	3.84	0.93
320116	100261	153	1.43	241	13.49	160	2.07	899	122	0.54	1385	135	1.07	1214	1.71	25.49	4.41	0.93
320177	100394	452	4.56	157	11.30	209	1.41	1918	313	1.48	1710	308	1.45	1762	4.19	37.09	7.32	0.98
320180	100365	82	0.10	260	14.57	133	1.83	913	70	0.36	1280	105	0.87	1151	1.43	22.25	4.49	0.87
320194	100378	158	1.51	155	13.61	210	2.69	1016	144	0.68	1305	167	1.38	1203	2.27	35.30	4.43	0.88
320195	100377	99	0.32	223	13.78	252	2.67	1240	139	0.67	1643	178	1.36	1519	2.42	34.78	5.43	0.95
320196	100373	168	2.26	141	13.33	155	1.78	1069	134	0.61	1494	141	1.01	1345	1.92	25.83	4.91	0.87
320197	100372	301	2.45	401	13.22	251	2.14	1525	194	0.80	1944	213	1.26	1797	2.90	32.22	6.65	0.88
320198	100371	234	4.52	114	11.74	268	2.05	1221	171	1.04	1554	204	1.39	1437	2.77	35.55	5.60	0.93
320199	100386	112	0.30	247	14.39	152	1.71	1020	99	0.37	1288	117	0.83	1194	1.59	21.23	4.61	0.92
320200	100383	1397	0.74	224	10.22	424	2.30	1012	550	0.49	1334	505	1.12	1221	6.93	24.64	4.62	0.80
320226	100595	330	10.32	94	8.07	487	4.59	798	390	3.60	1103	423	3.94	936	4.40	77.09	3.05	0.96
320326	100588	152	1.59	193	13.80	161	1.72	1169	129	0.79	1370	140	1.11	1299	1.90	28.39	5.30	0.97
320338	100598	227	7.70	132	9.84	163	1.41	1303	145	1.32	1556	151	1.35	1467	2.05	34.52	5.69	0.97
320345	100611	97	0.99	263	12.36	133	1.35	1147	100	0.94	1241	111	1.01	1208	1.51	25.83	4.96	0.96
320376	100722	257	7.74	102	9.14	481	3.79	683	352	2.97	957	397	3.25	851	4.87	74.49	3.11	0.96
320501	104123	144	1.22	242	13.51	133	0.45	933	135	0.57	1252	136	0.62	1140	1.72	12.41	3.98	0.89
320004	100016	282	7.69	16	9.95	253	3.40	911	184	2.75	1013	210	3.15	977	2.86	80.58	3.68	0.99
320085	100220	92	0.11	293	13.24	171	2.51	1060	87	0.27	1544	116	1.05	1374	1.58	26.86	5.40	0.94
320207	100 33	218	6.97	100	10.33	223	3.71	846	139	2.02	1118	170	2.61	1022	2.31	66.76	4.13	0.96
320274	101556	146	2.77	143	13.17	147	2.51	934	103	0.85	1308	113	1.43	1198	1.60	36.57	4.70	0.94
320324	100614	197	4.60	134	11.31	168	3.12	853	128	1.61	1008	142	2.13	953	1.33	54.48	3.89	0.97
320441	101124	434	10.89	64	7.96	339	4.72	1001	261	3.68	1039	288	4.04	1025	3.92	103.34	3.54	0.92
320443	101556	313	10.43	64	8.57	200	5.13	743	220	4.41	792	235	4.66	774	3.20	119.20	3.07	0.95
320089	100287	182	5.93	84	10.62	124	1.95	645	124	1.50	612	122	1.40	623	1.55	33.35	2.33	0.96
320432	100951	200	5.30	102	10.61	203	1.13	1082	183	1.55	1322	183	1.40	1230	2.15	30.63	3.75	0.91
320437	101344	210	5.47	63	10.55	142	1.06	707	136	1.15	800	136	1.11	765	1.72	26.44	2.79	0.93
320010	100038	236	6.28	86	10.79	137	1.34	588	82	1.14	559	90	1.21	562	1.23	30.95	2.21	0.94
320232	100404	96	1.42	140	13.30	139	0.76	611	141	0.49	987	139	0.92	851	1.81	13.73	2.38	1.03
320028	100070	323	5.41	151	11.11	191	2.35	896	138	1.42	1152	156	1.82	1062	1.98	43.36	3.75	0.90

LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HCLF
320002	100018	46	0.13	385	14.24	211	1.63	1208	129	0.32	1608	157	0.77	1468	2.14	19.70	5.26	0.85
320009	100034	146	4.14	155	12.48	231	1.83	1385	141	1.13	1574	172	1.37	1507	2.34	35.04	6.49	1.03
320016	100051	77	1.04	354	14.24	164	1.61	837	96	0.72	1231	121	1.03	1114	1.65	26.35	4.46	1.00
320049	100149	49	0.17	342	14.32	160	1.02	1132	110	0.27	1618	127	0.53	1447	1.73	13.56	5.55	0.91
320038	100130	158	5.01	151	11.75	184	2.04	891	124	1.17	1244	145	1.47	1120	1.98	37.60	4.25	0.30
320283	100580	80	0.17	490	11.93	157	1.45	1251	110	0.53	1511	126	0.85	1419	1.89	23.87	6.37	0.97
320452	101460	123	0.11	258	11.42	219	0.57	607	153	0.20	748	176	0.33	698	2.63	9.26	3.09	0.76
320281	100630	283	10.90	62	9.02	104	1.43	872	99	1.92	1026	109	1.68	972	1.15	36.50	3.23	0.73
320354	100653	168	6.53	114	10.59	258	2.16	859	167	1.76	1051	198	1.99	983	2.06	37.17	3.03	0.96
320356	100650	132	4.68	94	11.79	217	2.05	801	183	1.73	850	194	1.84	832	2.02	36.00	2.54	0.96
320185	100470	245	5.07	119	10.77	138	1.64	816	77	0.91	753	93	1.16	775	1.14	25.20	2.60	0.74
320249	100447	233	6.60	99	10.63	133	1.76	891	87	1.04	929	103	1.29	915	1.19	28.03	2.93	0.70
320321	100575	100	0.37	289	13.93	77	0.62	866	53	0.29	979	61	0.47	939	0.70	10.21	3.37	1.01
320406	100892	202	5.54	147	11.05	122	1.78	1020	80	0.88	1201	94	1.26	1137	1.08	27.37	3.74	0.92
320421	101410	416	4.56	85	11.45	184	1.77	811	149	1.45	840	161	1.49	823	2.04	35.49	3.01	0.93
320427	101076	141	3.80	124	12.21	72	1.13	830	44	0.75	750	53	0.98	778	0.61	19.12	2.57	0.33
320428	101147	185	5.15	86	11.33	147	1.60	1394	108	0.47	1671	121	1.12	1574	1.40	24.33	4.34	0.89
320429	101171	212	4.96	109	11.62	137	2.13	745	85	0.89	894	103	1.32	841	1.19	26.68	2.68	0.89
320480	101465	117	6.74	79	10.60	151	2.36	918	108	1.30	920	123	1.67	919	1.28	32.67	2.79	0.85
320484	101683	85	0.29	381	14.81	107	1.68	864	51	0.37	1020	70	0.82	965	0.80	17.82	3.23	0.94
320487	101860	238	6.62	71	10.78	341	2.38	768	272	2.34	785	296	2.35	779	3.38	50.41	2.47	0.91
320488	101859	142	8.56	67	9.87	188	1.64	576	165	1.55	670	173	1.58	637	1.97	33.69	2.03	0.91
320489	101877	191	7.92	60	10.26	313	1.20	764	246	1.10	402	269	1.13	353	2.80	22.10	1.03	0.30
320043	100196	256	2.13	250	13.17	215	0.64	1365	223	0.80	1299	220	0.74	1322	2.55	16.08	4.45	0.85
320150	100277	186	0.10	363	14.93	238	1.68	897	139	0.26	1334	173	0.75	1181	2.00	10.30	3.36	0.94
320156	100336	379	7.52	91	10.01	287	2.40	1156	233	1.52	1410	251	1.82	1321	2.99	33.55	4.38	0.87
320182	100368	431	6.58	125	10.32	365	2.36	1412	267	1.64	1719	297	1.89	1611	3.43	41.07	5.34	0.93
320188	100370	224	2.38	164	13.20	219	1.70	1187	152	0.54	1456	175	0.74	1361	2.22	22.33	5.33	0.75
320193	100391	187	1.00	249	13.94	194	2.01	982	104	0.36	1161	135	0.93	1098	1.71	22.15	3.69	0.86
320231	101220	180	0.40	87	12.81	302	2.49	659	343	0.36	1052	329	1.10	914	3.74	23.60	3.08	0.96
320286	100493	226	2.52	140	13.00	239	1.75	1146	178	0.56	1501	199	0.97	1376	2.30	21.07	4.77	0.97
320288	100496	293	5.34	121	11.38	290	3.30	719	195	1.45	931	228	2.11	856	2.63	45.15	2.33	0.38
320289	100520	332	7.14	125	10.10	232	2.78	1355	233	1.93	1540	253	2.22	1475	2.92	48.24	4.87	0.93
320291	100549	335	6.73	153	10.65	300	3.08	1417	237	1.94	1836	259	2.33	1689	2.97	50.63	5.73	0.45
320293	100534	130	0.03	430	13.25	131	0.35	1063	112	0.12	1281	118	0.20	1204	1.36	4.34	3.32	0.91
320330	100626	334	7.29	104	10.14	316	3.14	1411	228	1.86	1737	258	2.30	1661	2.98	49.99	5.51	0.93
320374	100721	212	1.08	316	14.00	262	1.69	1742	186	0.32	2313	212	0.79	2113	2.45	17.16	7.31	0.97
320402	100824	272	1.95	119	13.11	331	1.61	542	291	0.71	1715	304	1.02	1304	3.47	21.89	4.73	1.03
320449	101623	82	0.88	54	8.86	313	2.44	1641	222	0.54	2355	253	1.20	2105	2.89	25.74	7.02	0.75
320450	101436	707	9.44	80	8.59	492	1.89	994	414	1.67	767	416	1.74	846	4.33	34.04	2.54	0.94
320455	101513	172	3.31	102	12.60	342	2.08	1050	192	0.86	616	244	1.28	767	2.54	25.04	2.46	1.30
320456	101591	73	1.39	42	9.28	396	0.79	1702	312	0.43	1810	341	0.55	1772	3.89	11.80	6.30	0.36
320476	104116	367	7.36	242	11.89	354	1.94	1459	281	0.61	1858	306	1.07	1718	3.54	23.25	5.21	0.45
320498	.04118	238	2.50	187	12.93	205	1.78	872	168	0.53	1215	180	0.76	1094	2.08	20.89	3.30	0.84
320499	104124	262	4.05	152	11.32	222	2.01	1401	210	1.19	1444	214	1.47	1428	2.48	31.95	4.55	0.93
320500	104126	315	4.68	127	11.40	310	2.51	1323	219	0.90	1761	250	1.46	1607	2.89	31.73	5.17	0.41
320021	100057	152	1.31	315	13.83	207	2.29	1088	142	0.26	1817	164	0.97	1561	2.23	24.81	6.19	0.95
320033	100090	392	6.72	87	9.86	318	2.38	1543	282	1.70	1972	294	1.93	1821	4.01	49.37	7.27	0.94
320041	100231	209	3.76	169	12.15	229	1.71	1684	196	0.92	1907	207	1.19	1828	2.63	24.35	6.37	0.83
320050	100124	233	5.28	130	11.17	248	1.85	2232	200	1.04	2756	216	1.32	2577	2.94	33.76	9.87	0.91

LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT NOCF
320284	100505	92	0.46	277	14.65	184	0.81	988	144	0.36	1179	158	0.51	1117	1.82	11.08	3.81	0.96
320371	100109	94	0.30	285	14.46	189	0.44	1139	154	0.32	1266	166	0.36	1221	1.92	7.82	4.24	0.98
320379	100793	147	0.54	365	14.57	181	2.27	945	125	0.43	1273	144	1.11	1158	1.82	26.44	4.37	0.97
320396	100792	86	4.52	125	11.97	163	0.65	862	165	2.06	654	164	1.55	726	1.87	33.46	2.47	0.97
320397	100797	279	6.67	135	10.54	276	2.13	1336	240	2.16	1343	252	2.14	1340	2.91	46.50	4.60	0.97
320057	100379	326	10.37	82	8.55	381	3.37	1115	252	2.64	1572	297	3.07	1412	3.43	66.71	4.45	0.89
320069	100186	224	3.80	147	12.58	284	2.05	1587	203	1.04	2020	231	1.39	1868	2.93	33.11	6.32	0.95
320072	100128	100	0.26	445	14.37	274	2.03	1947	179	0.76	2574	212	0.87	2319	2.69	20.73	8.55	0.94
320073	100126	301	7.66	137	9.89	331	3.20	1625	251	1.99	2323	278	2.40	2078	3.53	57.17	7.63	0.94
320080	100170	208	3.95	151	12.44	285	2.71	1327	181	0.89	1694	217	1.52	1565	2.75	36.21	5.56	0.91
320090	100221	206	8.73	90	9.05	259	3.34	1275	171	2.58	1474	201	2.84	1404	2.55	67.66	5.10	0.93
320129	100228	273	10.81	94	8.29	298	3.57	1516	235	3.15	1808	257	3.29	1705	3.26	78.38	5.88	0.88
320174	100343	239	3.17	186	12.99	217	1.63	1496	147	0.74	1769	197	1.05	1686	2.49	25.00	5.53	0.94
320213	100394	167	4.82	146	11.90	256	2.37	1345	162	1.12	2028	198	1.55	1806	2.51	36.92	6.66	0.94
320228	100547	246	7.81	143	9.35	330	2.96	1660	217	2.13	2048	255	2.42	1912	3.24	57.64	7.25	0.97
320236	100426	288	6.76	134	10.51	345	2.62	1200	241	1.43	1914	277	1.84	1664	3.51	43.83	5.79	0.89
320256	101137	226	7.16	130	10.48	312	3.04	1447	202	1.87	1980	240	2.59	1773	3.04	61.69	6.36	0.91
320273	100489	98	0.40	270	13.88	195	2.52	935	120	0.37	1257	146	1.12	1133	1.68	24.33	4.09	1.01
320295	100591	313	8.44	104	9.26	308	3.04	1091	225	2.71	1126	254	2.92	1113	3.22	67.17	4.23	0.97
320331	100864	249	3.84	139	11.15	313	2.53	1287	213	1.20	1498	247	1.66	1424	3.13	39.54	5.16	0.93
320337	100605	98	0.27	366	14.50	252	2.11	1569	174	0.37	2102	201	0.97	1915	2.54	23.10	7.13	0.95
320405	100890	113	1.37	301	13.79	144	1.04	947	136	0.91	1149	152	1.26	1104	1.92	30.01	3.97	0.92
320431	100944	107	0.23	317	14.09	251	1.47	1526	138	0.26	1881	160	0.68	1756	1.85	14.77	5.74	0.92
320008	100033	224	4.19	116	12.24	340	3.27	986	160	1.02	1144	223	1.80	1088	3.04	46.04	4.61	1.03
320011	100042	99	0.11	304	13.29	211	2.41	1199	118	0.26	1665	150	0.97	1501	2.04	24.81	5.95	0.94
320019	100054	175	3.65	141	12.65	226	2.85	1374	140	1.12	1503	170	1.72	1457	2.32	44.00	6.19	1.01
320104	100259	103	0.10	320	14.04	159	1.07	1553	116	0.19	1446	131	0.49	1745	1.78	12.53	6.83	0.93
320126	100247	159	2.54	113	12.67	277	2.14	1475	184	0.56	1829	217	1.18	1704	2.96	30.19	6.20	0.87
320143	100332	98	0.10	253	13.43	133	1.43	1154	85	0.21	1585	101	0.63	1434	1.37	16.10	5.31	0.88
320154	100320	61	0.10	298	13.35	134	1.33	1316	83	0.19	1847	104	0.58	1651	1.42	14.84	6.61	0.95
320173	100317	250	6.12	78	10.96	243	3.46	1213	173	1.52	1680	197	2.19	1516	2.68	56.02	5.63	0.88
320203	100393	393	10.96	56	7.38	335	3.15	1187	264	2.43	1606	291	2.68	1394	3.96	68.55	5.51	0.94
320237	100412	86	0.12	302	14.01	153	1.30	1153	86	0.31	1532	111	0.85	1379	1.51	21.74	5.36	0.91
320204	100461	226	4.90	123	11.77	163	1.79	1030	137	1.42	1323	153	1.54	1225	2.20	41.57	4.22	0.93
320241	100410	189	5.33	136	11.42	227	3.07	664	164	2.75	722	186	2.96	701	2.57	77.22	2.85	0.92
320248	100427	58	0.25	395	14.48	174	1.00	1745	117	0.28	2050	136	0.53	1957	1.85	13.55	7.29	0.89
320269	100400	192	4.19	144	12.11	351	1.17	1035	322	0.73	1005	332	0.72	1015	3.77	19.73	3.36	0.94
320426	100995	321	7.05	137	12.64	231	1.37	1497	289	0.68	1749	289	0.92	1657	3.66	21.71	6.11	0.94
320435	101069	52	0.41	166	14.62	256	0.87	1178	270	0.32	1363	265	0.51	1298	3.02	10.93	4.27	0.94
320035	100105	290	10.95	79	7.68	300	2.51	2431	240	2.87	2496	261	2.74	2473	2.68	52.91	7.40	0.94
320047	100337	282	7.97	104	9.82	447	2.53	1691	465	1.72	1917	458	2.30	1837	4.24	34.76	4.56	0.87
320073	100411	99	2.13	287	13.48	179	0.87	2437	149	0.55	2752	153	0.66	2662	1.57	12.74	7.83	0.93
320357	100631	125	5.08	145	11.32	164	1.46	2843	150	1.69	2488	154	1.60	2612	1.58	30.89	8.03	0.98
320013	100047	163	1.66	220	13.41	206	1.41	936	167	0.52	1159	180	0.83	1087	2.28	19.77	3.94	0.93
320315	100564	197	3.21	137	12.82	198	1.33	931	146	0.90	1048	160	1.05	1033	2.02	25.03	4.25	1.05
320420	101177	47	0.13	109	9.33	229	0.42	925	287	0.20	1125	266	0.41	1054	2.77	8.01	3.03	0.90
320255	100477	190	9.80	84	8.99	274	3.38	858	157	2.70	1029	200	2.93	969	2.53	69.73	3.53	0.93
320411	101434	229	4.25	85	12.02	409	2.43	1329	313	1.67	1838	346	1.54	1653	4.39	36.68	6.14	0.95
320430	100991	34	0.10	184	13.10	280	1.84	81[illegible]	1[illegible]	0.28	1155	200	0.82	1049	2.28	17.59	3.49	0.94
320446	101323	176	5.34	85	9.95	583	3.77	3[illegible]	365	2.56	509	441	2.98	469	5.03	63.93	1.45	0.88

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LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
320419	101364	102	0.1>	132	13.73	196	0.50	1645	166	0.33	1799	176	0.38	1745	2.03	8.25	6.07	0.98
320485	101724	89	1.55	80	14.10	291	0.89	1277	350	1.11	1298	320	1.03	1284	3.75	22.09	4.24	0.94
320497	105119	292	5.78	196	10.35	345	4.53	943	339	4.61	1097	341	4.58	1043	3.55	89.44	2.83	0.85
320503	104127	92	0.05	117	11.53	186	0.11	1090	185	0.10	1116	185	0.10	1106	2.14	2.17	3.64	0.92
320504	104129	178	2.77	207	12.87	184	1.36	1732	185	1.24	2419	184	1.28	2248	2.13	27.86	7.25	0.90
320122	100243	89	0.77	154	13.03	240	1.02	1332	196	0.51	1591	211	0.68	1500	2.87	17.39	5.52	0.88
320148	100262	168	6.46	83	10.73	229	2.12	1896	182	2.23	1935	198	2.19	1921	2.70	56.02	7.67	0.95
320227	100401	213	0.80	182	12.22	224	1.33	1436	206	0.42	1790	212	0.73	1666	2.98	18.67	6.63	0.95
320242	100417	247	7.45	89	9.34	369	4.92	1086	273	4.11	1181	306	4.39	1147	4.16	112.29	4.42	0.92
320292	101338	70	0.24	158	13.92	232	0.63	1428	144	0.26	1672	174	0.38	1586	2.20	9.05	5.92	0.94
320381	100823	115	0.11	327	14.37	238	2.36	1243	142	0.62	1759	175	1.22	1578	2.22	29.06	6.35	1.03
320385	100915	248	4.11	157	10.64	227	1.86	1170	184	1.65	1500	199	1.72	1384	2.71	43.99	5.35	0.92
320390	101363	151	4.27	73	11.97	284	2.55	1719	170	1.54	2021	209	1.89	1915	2.84	48.34	7.73	0.96
320404	101345	76	0.38	174	13.22	152	0.72	1448	145	0.24	1698	147	0.40	1610	2.00	10.22	6.21	0.92
320407	101464	97	0.52	128	13.60	193	1.27	2068	142	0.38	2517	159	0.69	2359	2.16	17.64	9.28	0.94
320023	100059	219	7.30	95	9.63	272	3.60	933	230	2.57	1511	244	2.93	1308	3.51	79.12	5.73	0.93
320040	100130	125	0.50	338	14.63	201	2.02	1371	126	0.40	1933	152	0.96	1736	2.19	25.92	7.33	0.95
320368	100667	136	5.21	122	11.91	173	2.78	994	123	2.52	854	140	2.61	903	2.01	70.47	3.83	0.96
320383	100865	138	0.20	97	13.83	238	1.34	1319	277	0.59	1685	263	0.85	1556	3.04	18.47	5.14	0.93
320201	100337	188	5.41	113	11.03	335	3.03	1207	177	1.94	1673	232	2.60	1509	3.16	66.50	5.64	0.99
320245	100416	208	6.35	100	10.49	276	3.23	1268	182	2.16	1513	214	2.53	1427	2.91	64.71	5.43	0.91
320048	100640	142	4.42	80	9.58	268	4.49	668	181	2.47	953	211	3.17	853	2.67	75.51	3.13	0.94
320244	100415	254	3.60	93	12.31	209	1.56	503	144	1.25	635	166	1.35	588	1.89	28.95	1.87	0.81
320018	100053	45	0.10	162	13.06	130	0.63	1491	69	0.14	1400	90	0.31	1431	1.23	7.93	5.73	0.95
320436	101174	130	6.03	77	10.15	241	4.13	766	153	2.45	1084	183	3.03	972	2.32	72.18	3.41	0.90
320447	101198	195	4.66	105	11.41	319	3.34	859	167	1.67	957	220	2.25	922	2.79	53.59	3.25	0.90
320062	100347	62	0.17	161	14.14	346	0.08	1641	237	0.21	1894	275	0.54	1805	2.37	8.75	4.50	0.94
320349	100617	193	5.39	124	10.98	379	3.49	903	343	2.24	1428	355	2.67	1244	3.06	43.31	3.21	0.97
320377	100950	267	6.61	115	9.89	274	1.38	1826	222	1.12	2116	240	1.21	2014	2.29	21.74	5.32	0.90
320386	100800	49	0.18	201	14.44	282	0.65	1533	187	0.27	1746	220	0.40	1671	1.90	6.48	4.22	0.95
320388	100825	241	6.66	93	10.04	474	2.25	1213	379	1.78	1376	412	1.94	1331	3.56	31.47	3.62	1.02
320378	100765	186	3.03	163	13.00	272	1.44	2107	213	0.79	2569	233	1.01	2407	2.39	19.50	7.06	0.93
320026	100068	410	7.13	114	9.84	330	2.16	2604	292	1.83	2404	305	1.94	2474	2.92	34.87	6.97	0.96
320096	100169	179	5.02	87	8.18	474	2.44	1430	333	1.76	1727	362	1.99	1623	3.29	32.15	3.80	0.89
320115	100216	157	2.93	151	12.82	200	1.21	1875	150	0.54	2253	167	0.77	2120	1.60	13.84	6.00	0.96
320225	100430	232	5.83	130	11.05	367	2.71	1927	216	1.36	2681	268	1.90	2417	2.56	34.14	6.87	0.89
320229	100442	168	3.76	188	12.04	278	2.20	2165	197	0.75	2849	225	1.25	2609	2.15	22.46	6.93	0.90
320263	100602	135	2.95	190	12.47	300	1.40	2024	257	1.04	2049	272	1.16	2040	2.35	18.81	5.22	0.96
320325	100616	136	5.47	151	11.36	269	2.21	1854	224	1.68	2037	237	1.86	1972	2.06	30.17	5.10	0.97
320334	101070	248	6.72	85	10.39	275	1.73	1971	211	1.39	1875	233	1.52	1908	2.23	27.31	5.24	0.93
320027	100687	150	0.29	216	14.64	200	0.89	973	149	0.41	1018	166	0.57	1002	1.92	12.38	3.41	0.96
320044	100111	230	4.18	125	12.10	219	2.29	681	152	1.15	941	175	1.55	849	2.03	33.67	2.98	0.93
320082	100346	260	6.54	129	10.83	153	2.48	560	116	1.60	739	128	1.90	676	1.48	41.29	2.26	0.94
320125	100242	104	0.80	295	14.38	93	1.22	614	64	0.32	753	74	0.63	704	0.94	15.01	2.43	0.93
320149	100278	108	0.72	265	14.68	217	2.62	806	136	0.52	1093	164	1.25	992	1.90	27.17	3.38	0.96
320159	100290	85	0.13	276	12.80	208	1.33	861	143	0.32	1056	165	0.67	987	1.91	14.56	3.37	0.96
320160	100289	135	0.20	248	14.50	229	1.16	1180	182	0.29	1443	198	0.53	1350	2.29	12.82	4.63	0.96
320167	100361	121	4.17	99	10.49	433	3.39	589	307	3.07	622	351	3.18	610	4.01	68.22	1.35	0.92
320214	100546	2098	0.76	200	11.38	2274	0.69	962	2098	0.48	984	2159	0.55	976	27.40	13.10	3.67	0.96
320275	100469	341	8.66	117	9.46	285	2.45	1013	221	1.71	1213	243	1.93	1142	2.81	41.94	3.85	0.95

LOS ANGELES — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
320076	100219	232	4.54	138	11.52	270	2.31	1326	219	1.61	1837	236	1.85	1658	2.43	35.72	4.99	0.95
320114	100274	140	1.98	234	13.23	174	1.20	1862	115	0.54	2245	135	0.77	2110	1.33	14.87	6.30	0.94
320145	100304	267	6.20	133	12.53	275	2.14	1875	218	2.11	2455	237	2.12	2251	2.44	40.34	6.67	0.93
320166	100364	75	0.60	558	14.91	154	0.41	2199	152	0.41	2392	152	0.40	2324	1.40	6.95	6.12	0.92
320252	100475	152	0.95	473	13.98	203	0.35	2232	148	0.26	2819	167	0.46	2613	1.71	8.86	7.89	0.94
320297	100912	149	1.70	228	13.36	211	1.01	1853	140	0.51	2454	164	0.68	2243	1.68	13.12	6.61	0.93
320309	101408	153	7.24	98	10.13	311	2.43	1786	223	1.95	1984	253	2.11	1914	2.34	36.67	4.95	0.91
320382	100796	313	10.57	31	7.48	362	2.96	1853	325	3.36	1937	344	3.22	1907	3.18	55.97	5.27	0.97
320490	102239	158	1.84	143	13.42	361	1.86	1418	268	0.79	1867	300	1.16	1709	2.77	20.16	4.32	0.99
320100	100275	134	1.75	230	12.90	106	0.80	1075	82	0.50	1148	90	0.60	1129	0.93	11.59	3.29	0.92
320310	100548	126	3.93	129	11.98	301	2.31	1200	165	2.10	1262	212	2.17	1240	1.96	37.71	3.40	0.96
320312	101435	164	3.54	152	11.84	199	1.96	2002	171	1.13	2425	180	1.45	2276	1.85	27.99	6.62	0.92
320392	101287	221	6.70	109	9.61	310	3.40	1317	286	2.76	1612	294	2.98	1509	3.40	64.76	5.04	0.94
320147	100376	151	1.27	210	13.76	133	1.76	934	131	0.37	1099	152	0.86	1055	1.92	20.48	3.47	0.84
320158	101358	202	4.56	151	11.85	189	1.54	883	153	1.18	1000	165	1.30	959	1.69	25.10	2.81	0.93
320369	100646	82	0.16	255	13.06	167	0.72	1535	136	0.35	1880	146	0.47	1759	1.85	11.19	6.61	0.96
320491	102387	183	2.03	283	13.49	292	2.09	965	232	1.31	1418	253	1.58	1259	2.32	34.33	4.29	0.96
320350	100623	184	7.75	110	8.35	337	3.39	1102	268	3.47	1226	292	3.40	1182	3.70	80.99	4.34	0.94
320362	100642	54	0.13	144	12.70	214	0.48	1340	192	0.14	1522	139	0.26	1458	2.30	5.65	5.05	0.97
320208	100396	260	4.30	164	11.56	336	1.86	2530	309	1.50	2870	317	1.62	2751	2.93	28.15	7.40	0.94
320358	100647	73	0.84	129	12.53	231	1.29	1739	186	0.43	2113	201	0.73	2052	1.86	12.68	5.57	0.95
320003	100019	104	0.92	304	13.36	178	1.77	2708	109	0.27	2974	133	0.79	2880	1.54	17.17	8.75	0.85
320006	100024	191	8.63	82	8.19	452	7.34	662	189	4.78	1031	281	5.67	901	3.25	123.22	2.97	0.93
320012	100043	587	9.53	97	9.13	349	3.34	2025	254	2.39	2690	287	2.72	2457	3.32	57.11	8.30	0.95
320053	100151	319	6.92	121	9.95	301	3.01	2555	222	1.52	3229	243	2.04	2903	2.88	44.33	3.67	0.90
320060	100125	234	6.56	136	10.38	497	3.32	1442	433	3.44	1577	451	3.30	1543	5.14	72.55	5.10	0.94
320112	100246	167	2.40	248	12.39	229	3.01	2330	150	0.75	2760	177	1.54	2737	2.05	33.47	8.43	0.86
320243	100418	92	0.33	680	13.31	150	1.67	2522	103	0.25	3122	119	0.74	2912	1.37	16.08	9.56	0.92
320247	100429	173	3.66	201	11.87	239	3.88	1829	171	1.95	2424	215	2.62	2215	2.48	56.93	7.08	0.90
320270	100486	197	3.79	221	11.86	233	2.66	1963	154	0.75	2471	181	1.41	2293	2.09	30.64	8.37	1.02
320333	100582	119	4.21	155	10.54	277	2.73	2137	107	1.08	2803	166	1.65	2569	1.92	35.85	8.73	0.96
320334	100583	176	5.44	216	10.32	240	3.62	2209	134	1.37	2977	171	2.15	2708	1.97	46.72	9.26	0.96
320434	101121	47	0.10	240	13.63	230	0.38	3750	144	0.31	2706	174	0.33	3071	1.98	7.07	8.85	0.82
320433	101142	152	4.30	119	11.84	900	1.92	1894	288	1.88	1976	502	1.49	1947	5.73	40.54	5.76	0.87
320092	100167	137	0.97	213	14.22	170	1.12	1787	144	0.54	2385	153	0.74	2175	1.77	16.08	7.07	0.91
320121	100801	136	1.43	170	11.84	219	1.46	2299	159	0.56	2721	177	0.87	2573	2.07	18.90	8.77	0.95
320135	100276	91	0.52	209	14.27	189	1.60	1551	131	0.36	2056	151	0.79	1879	1.75	17.17	6.31	0.94
320136	100285	62	0.09	150	12.13	169	0.73	1931	146	0.15	2209	154	0.35	2170	1.78	7.61	7.38	0.95
320137	100303	66	0.12	239	13.19	177	0.85	1685	129	0.20	2030	145	0.42	1909	1.68	9.13	6.43	0.94
320138	100319	61	0.13	244	13.62	164	1.09	1670	112	0.20	2119	130	0.51	1961	1.50	11.08	6.27	0.90
320139	100338	123	0.87	168	13.42	136	1.01	891	111	0.40	976	119	0.61	946	1.37	13.25	2.94	0.87
320140	100345	116	0.72	153	13.41	176	1.18	2028	153	0.37	2367	161	0.65	2249	1.86	14.12	7.34	0.92
320141	100363	112	1.16	134	14.03	169	1.37	1737	109	0.36	2129	123	0.71	2012	1.49	15.42	6.63	0.92
320142	100380	103	0.72	181	14.25	133	1.28	1688	152	0.35	2168	168	0.67	2000	1.94	14.55	6.39	0.90
320211	101365	127	2.34	116	13.15	178	1.00	1644	159	1.41	1490	165	1.26	1537	1.90	27.37	5.33	0.97
320246	100414	84	0.22	217	14.57	212	1.37	1542	119	0.32	1993	151	0.68	1835	2.05	17.33	6.94	0.90
320261	100769	123	1.05	130	13.86	166	0.44	2005	150	0.53	2151	155	0.49	2039	1.79	10.64	6.93	0.93
320285	101265	249	7.53	102	9.83	239	2.43	1505	203	2.29	1704	215	2.33	1764	2.49	50.64	6.37	1.02
320340	101238	147	2.89	147	11.46	156	[illegible]	1529	144	0.69	1827	158	0.79	1723	2.15	20.20	6.90	0.95
320395	100795	306	9.74	40	8.23	248	.03	1787	195	2.32	2370	213	2.56	2105	2.46	55.63	7.38	0.96

LOS ANGELES

1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
320277	100464	257	7.93	106	8.99	315	2.61	2252	256	1.94	2619	276	2.17	2490	2.21	32.65	5.64	0.72
320063	100165	307	2.90	134	12.61	302	2.17	916	217	2.00	702	246	2.05	776	1.77	27.74	1.52	0.88

TABLE B-4

Detroit

DETROIT

1979 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT ROAC	MASS EQUIVALENT HUCF
420059	000061	126	3.11	103	12.65	244	1.43	1246	173	1.05	1485	197	1.20	1401	1.82	20.85	3.74	0.94
420091	000098	165	0.68	281	14.06	233	0.76	2300	166	0.19	2862	189	0.38	2665	1.94	7.33	8.97	1.06
420353	000424	128	1.06	254	13.87	245	1.07	1410	137	0.40	1736	174	0.63	1621	2.01	13.71	5.43	0.94
420428	000527	185	1.69	219	13.75	213	0.82	1847	153	0.41	2467	173	0.55	2251	1.78	10.63	6.70	0.94
420463	000611	224	4.84	88	11.58	268	1.97	1855	181	1.26	2468	211	1.50	2253	2.17	29.00	7.13	1.00
420478	000639	264	7.81	62	9.53	472	2.86	1594	368	1.92	2214	404	2.24	1997	3.74	38.93	5.39	0.95
420487	000635	183	6.12	72	10.34	362	2.56	1522	247	1.72	1928	287	2.01	1785	2.65	34.93	4.82	0.95
420521	000634	391	3.31	109	12.24	328	1.54	1870	238	1.06	1942	269	1.22	1916	2.77	23.59	5.69	0.94
420522	000695	123	0.17	185	14.78	217	0.38	1238	166	0.43	1555	183	0.62	1444	1.88	11.08	4.31	0.94
420173	000173	172	1.33	103	13.61	447	2.69	671	307	2.45	705	355	2.53	693	3.28	43.97	1.85	0.94
420510	000668	133	0.61	239	14.02	337	2.00	920	204	1.11	1188	250	1.42	1034	2.57	27.45	3.27	0.94
420264	000264	296	5.52	136	10.83	450	4.87	914	307	3.25	1056	357	3.81	1006	4.14	82.94	3.39	0.95
420386	000483	182	3.80	94	12.32	308	2.07	1035	217	1.67	1287	248	1.80	1198	3.15	42.88	4.36	0.93
420425	000524	113	0.87	205	14.53	204	1.01	1512	131	0.36	1596	156	0.58	1566	1.81	12.60	5.55	1.00
420410	000503	340	6.54	63	10.40	337	1.59	1086	288	1.48	1432	305	1.51	1310	3.14	27.16	3.86	0.93
420413	000512	144	0.32	181	14.31	236	0.03	1092	154	0.23	1386	182	0.47	1283	1.87	9.08	3.75	0.92
420460	000608	127	0.82	156	13.65	164	1.48	659	126	0.39	1011	146	0.77	897	1.85	18.33	3.28	0.94
420462	000610	129	1.11	150	13.98	186	1.05	1342	137	0.46	1666	154	0.66	1552	1.95	15.75	5.61	0.92
420248	000248	121	0.33	250	14.38	263	1.01	1436	200	0.36	1746	222	0.58	1637	2.82	13.84	6.06	0.95
420394	000493	170	4.28	81	11.74	336	1.95	994	296	1.46	1394	310	1.63	1254	3.59	35.48	4.09	0.91
420021	000021	173	3.30	146	11.29	267	3.25	1704	162	0.97	2534	198	1.76	2243	2.29	38.24	8.20	1.03
420498	000656	167	1.53	261	12.79	270	1.61	1962	180	0.81	2428	211	1.08	2264	2.17	20.85	6.80	0.95
420506	000664	308	7.47	80	9.16	345	2.88	1951	247	2.03	2543	281	2.32	2335	2.89	44.80	6.33	0.94
420550	000756	93	0.10	143	13.12	240	0.81	2421	207	0.45	2493	218	0.57	2467	2.01	9.90	6.43	0.91
420123	000124	141	0.51	305	13.81	262	2.62	1957	151	0.39	2725	189	1.17	2456	2.19	25.43	9.34	1.07
420185	000185	313	6.36	60	9.90	418	4.69	1400	280	3.08	1647	329	3.64	1560	3.80	79.11	4.39	0.89
420207	000207	237	6.45	98	9.53	376	2.86	823	267	2.79	1023	305	2.81	952	3.17	54.87	3.08	1.01
420325	000349	339	6.32	118	10.43	334	3.47	2169	265	1.68	2804	289	2.31	2561	3.35	50.20	8.72	0.95
420383	000479	204	1.97	97	12.52	295	2.17	1344	198	0.76	2516	231	1.25	2315	2.67	27.21	7.36	0.99
420388	000487	264	0.62	1293	12.45	370	4.58	1614	279	1.96	1742	310	2.87	1637	3.59	62.48	5.64	0.93
420391	000490	282	6.26	91	9.73	263	2.33	1709	220	1.57	1978	242	1.83	1883	2.80	36.84	6.35	0.94
420403	000502	179	3.12	151	12.40	294	2.91	1629	170	1.00	2117	213	1.66	1946	2.46	36.14	6.37	0.92
420420	000519	339	10.44	34	7.47	420	6.42	1037	250	3.58	1734	309	4.57	1507	3.58	99.50	4.33	0.92
420430	000529	452	11.56	51	6.94	341	3.78	1767	338	3.65	1924	353	3.69	1869	4.09	80.33	5.66	1.00
420443	000564	289	6.62	95	9.74	298	2.80	1917	251	3.03	1706	263	2.94	1779	3.04	64.01	6.50	1.03
420456	000604	438	11.52	31	6.05	416	4.92	1533	313	3.78	2162	349	4.17	1962	4.04	98.78	7.02	1.00
420470	000619	258	4.43	90	11.01	342	3.44	1825	201	1.18	2489	250	1.97	2256	2.89	42.88	7.50	0.94
420481	000629	187	5.22	84	10.58	378	2.10	1530	247	1.79	1958	282	1.89	1829	3.04	36.97	5.66	1.00
420018	000028	108	0.50	152	13.74	164	0.54	1040	133	0.23	1233	143	0.33	1117	1.94	8.43	4.83	0.96
420019	000023	95	0.07	126	13.24	202	0.95	1115	161	0.11	1454	175	0.36	1335	2.38	9.20	5.10	0.91
420022	000020	182	5.32	94	10.35	172	1.93	1175	145	1.25	1456	161	1.50	1357	2.19	38.36	5.25	0.92
420025	000035	163	1.26	98	12.33	213	0.98	1052	170	0.26	1379	185	0.51	1277	2.52	13.04	5.05	0.94
420053	000054	252	6.41	55	9.02	257	1.90	731	202	1.46	1077	224	1.61	976	3.05	41.17	3.63	0.89
420103	000106	147	1.24	114	13.56	232	0.76	1457	186	0.35	1822	202	0.49	1634	2.33	10.64	5.84	0.97
420119	000120	131	2.53	97	12.92	160	0.84	1040	141	0.67	1430	147	0.78	1307	1.70	16.97	4.49	0.96
420126	000126	167	1.08	126	13.41	265	0.84	1776	198	0.40	1949	221	0.55	1888	3.01	14.10	7.61	0.96
420158	000158	118	0.54	131	13.22	210	0.84	1151	169	0.29	1533	177	0.48	1399	2.05	10.43	5.13	1.04
420259	000259	979	2.94	89	10.93	398	1.25	711	232	0.70	931	266	0.89	892	3.90	22.81	3.65	0.97
420365	000482	236	6.18	68	10.49	343	1.08	1043	316	1.83	1137	325	1.91	1104	3.38	37.37	3.28	0.93
420409	000508	322	9.68	40	7.98	225	1.54	979	217	1.63	1246	213	1.53	1152	2.47	34.55	3.74	0.96

DETROIT — 1978 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOX	MASS EQUIVALENT HUCF
420424	000523	156	4.35	70	13.22	198	0.49	1663	162	0.47	1897	171	0.47	1815	2.33	12.05	7.58	0.99
420429	000528	357	0.50	161	13.70	399	0.88	1677	320	0.27	2314	347	0.48	2098	4.41	11.45	7.71	0.94
420439	000560	151	1.86	104	13.45	205	1.07	1437	151	0.54	1768	169	0.73	1768	1.96	15.86	6.03	0.96
420441	000562	301	7.24	53	9.79	233	1.64	1185	199	1.51	1431	210	1.55	1344	2.67	37.00	5.12	0.97
420471	000620	423	9.07	58	8.34	347	2.26	1588	290	2.11	1831	306	2.16	1745	3.54	47.02	5.88	0.94
420477	000625	231	4.26	75	11.92	286	1.98	1392	203	1.06	1977	232	1.38	1772	2.69	30.04	6.03	0.95
420479	000627	194	3.32	79	12.74	229	1.18	1524	176	0.73	1951	194	0.88	1801	2.24	19.15	6.07	0.94
420484	000632	81	0.24	168	14.26	126	0.37	739	80	0.14	757	96	0.22	750	1.11	4.78	2.50	0.94
420485	000633	138	1.34	98	13.94	134	0.90	1235	151	0.40	1430	166	0.57	1361	1.92	12.40	4.60	0.95
420507	000665	171	3.23	47	11.63	206	1.23	737	159	0.87	945	175	0.99	872	2.33	25.38	3.46	0.94
420063	000069	277	7.93	69	9.14	317	3.21	1091	254	2.33	1418	276	2.43	1303	3.76	67.27	5.29	0.97
420165	000165	162	3.37	55	12.03	306	3.02	995	202	1.65	1311	238	2.12	1200	3.25	54.36	4.85	0.96
420230	000230	161	5.62	80	10.78	294	2.93	907	208	2.49	986	238	2.64	958	3.24	67.53	3.69	0.92
420278	000283	196	5.89	85	11.01	259	2.66	1240	204	2.76	1435	223	2.72	1366	3.04	69.58	5.26	0.92
420280	000287	239	3.31	93	11.95	418	1.61	1008	259	1.28	1278	314	1.39	1183	4.28	35.64	4.63	0.93
420306	000325	193	3.50	102	12.27	244	1.46	1374	189	1.21	1511	208	1.29	1463	2.84	33.08	5.57	0.91
420339	000395	263	4.66	85	9.76	500	4.89	975	327	2.54	1331	387	3.36	1213	5.28	86.16	4.78	0.94
420395	000494	230	7.03	63	9.62	287	2.35	1267	235	2.79	1224	253	2.63	1239	3.45	67.44	5.35	1.03
420399	000498	184	3.02	70	12.27	255	2.16	860	177	0.78	1234	204	1.26	1103	2.78	32.30	4.35	0.94
420404	000503	561	10.41	48	7.28	491	4.93	1003	463	4.78	1200	472	4.83	1131	6.44	123.87	4.56	0.96
420433	000532	160	0.76	182	13.46	193	0.64	1167	151	0.40	1540	165	0.48	1409	2.25	12.30	5.57	0.94
420451	000574	271	8.87	46	8.55	309	3.89	1118	222	2.46	1766	252	3.28	1537	3.20	78.31	6.21	1.03
420452	000575	395	6.53	67	10.09	406	2.97	1506	330	3.01	1597	356	2.99	1565	4.86	76.67	6.43	0.98
420500	000658	175	5.11	68	11.17	308	4.04	1008	182	2.40	1273	226	2.97	1140	3.26	80.44	5.17	0.99
420155	000155	143	2.85	62	11.51	280	1.86	523	219	1.40	695	240	1.56	634	2.50	30.52	1.87	0.92
420480	000628	310	9.46	40	8.03	274	3.66	906	250	3.91	1070	258	3.92	1012	2.99	83.17	3.56	0.93
420427	000526	231	5.41	67	10.99	338	3.67	1391	211	1.62	2114	255	2.33	1860	3.48	59.75	6.87	0.89
420578	000837	210	6.43	94	10.22	322	2.88	1508	192	1.91	2093	237	2.24	1881	3.23	57.44	7.87	0.99
420431	000530	375	7.26	62	9.36	284	3.87	886	299	4.84	676	293	4.50	749	3.72	107.43	2.92	1.00
420488	000587	363	7.43	44	8.01	426	6.56	274	335	4.85	542	366	5.44	455	4.65	123.87	1.61	0.91
420051	000050	198	2.44	93	12.94	448	2.34	1117	347	1.71	1238	382	1.93	1135	3.29	31.18	2.76	0.97
420084	000089	297	5.96	100	10.85	355	1.53	1561	277	1.39	1691	304	1.43	1645	2.90	25.69	4.81	0.99
420145	000145	592	9.08	61	8.56	927	2.27	1585	569	2.33	1966	634	2.30	1832	5.99	37.31	5.02	1.03
420412	000511	241	3.06	115	12.65	317	1.09	2032	222	0.70	2482	255	0.83	2345	2.44	14.93	6.45	0.99
420503	000661	275	5.49	59	10.65	442	3.26	802	367	2.60	925	373	2.96	881	3.39	48.02	2.19	0.96
420003	000003	167	2.20	164	13.08	250	1.27	1883	190	0.49	2229	211	0.76	2109	2.02	13.66	5.96	0.94
420048	000051	218	4.70	121	11.57	301	1.80	1964	248	1.06	2436	266	1.31	2270	2.54	23.54	6.40	0.96
420035	000092	228	5.74	94	10.24	326	1.66	1852	280	1.01	1994	296	1.23	1944	2.83	22.10	5.27	0.92
420101	000102	151	2.99	131	10.82	252	1.46	1740	200	1.02	1933	218	1.17	1865	2.08	21.02	5.38	0.98
420182	000182	90	2.22	95	13.42	295	2.09	1118	215	0.79	1659	242	1.24	1469	2.09	20.11	3.91	1.00
420340	000387	197	4.14	135	11.59	341	1.99	1511	258	0.97	1880	287	1.32	1750	2.75	23.75	4.95	0.96
420341	000388	326	7.13	77	9.71	353	1.48	1564	310	1.19	1743	325	1.29	1706	3.11	23.21	4.99	0.99
420440	000561	87	0.75	103	14.39	253	1.93	1000	261	1.42	1175	260	1.53	1113	2.24	24.71	2.88	0.97
420037	000031	173	0.69	139	14.32	275	1.33	661	213	0.37	879	234	0.70	802	2.70	15.20	2.75	0.97
420040	000036	276	7.61	71	10.05	279	2.80	593	184	1.66	724	217	2.05	678	2.75	48.83	2.30	0.87
420041	000039	132	1.15	174	14.23	221	1.31	1009	166	0.43	1277	185	0.73	1183	2.14	15.86	3.76	0.89
420079	000079	232	3.91	103	12.37	283	1.82	934	222	0.98	1063	243	1.27	1017	2.91	27.60	3.47	0.96
420080	000080	158	0.50	208	14.48	284	1.13	884	219	0.28	1146	241	0.57	1054	2.78	12.38	3.63	0.97
420092	000097	167	1.20	126	14.23	176	1.86	366	114	0.72	464	135	1.11	429	1.56	24.12	1.46	0.76
420111	000112	146	0.39	147	14.45	292	1.79	686	214	0.52	935	241	0.96	847	2.79	20.89	2.84	0.94

DETROIT 1270 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
420124	000125	124	0.19	210	14.36	188	0.95	561	140	0.41	872	156	0.59	763	1.80	12.84	2.61	0.96
420137	000136	422	8.23	72	9.58	332	2.33	774	328	1.87	1032	329	2.03	980	3.81	44.17	3.54	1.01
420139	000139	175	1.26	158	13.95	239	1.60	680	210	0.79	744	241	1.07	721	2.79	23.29	2.43	0.94
420140	000140	216	3.98	98	12.36	280	2.08	719	183	1.04	916	220	1.40	847	2.55	30.47	3.13	1.04
420192	000192	253	4.47	105	12.04	213	1.51	622	156	1.25	677	176	1.34	658	2.23	31.92	2.42	0.94
420206	000206	287	8.17	101	9.57	282	2.28	492	200	1.80	678	228	1.96	612	2.89	46.79	2.49	1.04
420324	000348	109	0.32	231	14.11	233	0.83	1131	202	0.42	1222	212	0.56	1190	2.45	12.19	4.01	0.94
420486	000634	93	0.35	97	14.83	347	1.59	672	293	0.48	892	311	0.86	815	3.24	16.82	2.49	0.96
420014	000018	81	0.41	185	14.29	268	2.13	939	147	0.33	1345	189	0.95	1202	2.39	22.62	4.25	0.90
420016	000015	95	0.46	253	14.40	245	1.51	1352	185	0.51	1693	205	0.85	1573	2.60	20.24	5.68	0.92
420017	000016	69	0.08	139	13.34	333	2.64	1032	210	0.20	1424	253	1.05	1286	3.20	25.00	4.66	0.93
420030	000032	276	3.00	103	12.76	396	2.68	1104	264	0.74	1571	310	1.41	1407	3.93	33.59	5.35	0.97
420031	000024	131	0.96	206	14.17	298	1.83	1128	206	0.54	1445	238	0.99	1334	3.01	23.57	4.65	0.89
420032	000010	105	0.27	213	14.50	294	1.74	1261	205	0.31	1656	236	0.81	1517	2.99	19.28	5.77	0.97
420044	000038	186	1.48	141	13.91	301	2.03	1472	232	0.93	1734	256	1.24	1642	3.24	27.53	6.33	0.99
420045	000041	755	11.22	84	7.64	566	3.66	1152	536	2.68	1339	546	3.02	1273	6.92	71.94	4.41	0.89
420054	000057	177	2.52	180	13.34	431	3.52	1017	271	1.20	1451	326	2.01	1299	4.13	47.86	5.10	1.01
420061	000063	180	0.44	252	14.25	358	1.99	1458	263	0.46	1812	296	0.99	1688	3.76	23.58	6.27	0.95
420072	000071	385	7.96	83	9.69	466	3.90	903	310	1.96	1329	364	2.63	1179	4.61	62.64	4.60	1.00
420074	000074	236	4.07	102	12.22	346	2.33	1360	241	0.87	1726	277	1.38	1597	3.51	32.87	6.30	1.01
420076	000078	303	3.94	99	12.38	367	2.20	893	294	1.07	1344	319	1.46	1186	3.6	31.73	3.81	0.90
420083	000085	95	0.11	291	14.13	321	3.44	707	174	0.31	1964	225	1.40	1459	2.85	33.34	5.46	0.96
420085	000090	440	8.33	95	9.48	419	1.76	1455	380	1.96	1488	393	1.89	1436	4.54	41.07	5.19	0.99
420110	000111	173	0.22	311	14.40	353	2.81	1430	207	0.74	1964	258	1.46	1777	3.27	34.78	6.60	0.95
420113	000114	168	2.00	147	13.66	301	1.97	1261	225	1.33	1437	251	1.55	1375	3.19	37.00	4.66	0.96
420114	000115	207	3.64	73	11.54	281	0.88	898	235	1.03	1091	251	0.97	1023	3.19	23.15	4.06	1.02
420132	000131	2234	8.40	77	7.69	973	3.80	675	1823	2.47	1038	1529	2.94	910	19.44	70.19	3.51	0.99
420143	000143	161	0.91	180	14.35	239	2.37	739	201	0.77	1257	235	1.32	1075	2.98	31.51	4.01	0.95
420151	000151	174	4.90	70	11.68	361	2.07	943	243	1.27	1210	284	1.54	1116	3.24	33.03	4.02	1.02
420093	000099	434	10.04	59	8.45	355	2.48	1396	329	2.07	1643	338	2.21	1556	4.60	56.53	5.61	0.86
420116	000116	506	6.73	91	9.71	536	3.40	940	407	1.51	1513	452	2.17	1312	6.17	55.64	5.53	1.00
420130	000129	525	9.60	62	8.50	486	3.36	1080	380	2.66	1351	417	2.90	1256	5.69	74.36	4.69	0.89
420146	000146	330	7.14	74	10.12	342	2.66	566	251	2.04	676	282	2.25	650	3.85	57.69	2.55	0.93
420148	000148	266	2.62	102	13.28	368	2.00	1012	212	0.71	1439	266	1.16	1289	3.63	29.74	6.04	1.11
420194	000194	248	6.10	109	10.90	309	2.36	967	223	1.58	1127	253	1.85	1070	3.45	47.44	4.96	1.10
420195	000195	114	0.10	190	14.75	164	0.94	925	113	0.15	1210	134	0.42	1110	1.83	10.76	4.57	0.99
420198	000198	253	6.07	93	10.82	249	2.60	885	184	1.47	1161	206	1.86	1064	2.81	47.69	4.40	0.98
420201	000201	173	1.30	197	14.05	248	1.85	1032	158	0.50	1371	189	0.97	1252	2.58	24.37	4.82	0.91
420642	000979	158	0.77	125	13.77	345	2.94	914	185	0.31	1608	240	1.23	1365	3.05	29.36	5.26	0.98
420104	000105	146	4.34	103	12.19	273	1.88	713	137	1.22	780	160	1.45	756	2.17	37.08	2.91	0.92
420246	000246	653	9.31	88	8.61	385	2.71	773	348	2.02	1094	360	2.26	981	5.19	61.21	3.97	0.91
420314	000335	115	2.56	173	13.34	271	2.43	649	143	0.79	982	187	1.36	865	2.55	34.87	3.33	0.92
420338	000384	323	3.50	105	12.33	370	1.26	854	230	0.78	876	254	0.94	868	3.66	25.45	3.62	0.94
420406	000505	167	6.20	76	10.42	211	1.21	574	163	1.27	725	179	1.24	672	2.04	26.60	2.16	0.92
420587	000848	527	2.17	95	13.04	508	0.77	897	487	0.54	1040	494	0.62	989	5.64	13.29	3.72	1.07
420593	000854	122	0.06	294	13.87	222	0.80	1304	146	0.20	1143	172	0.41	1199	2.18	9.78	4.35	0.93
420047	000049	168	2.73	137	13.16	253	1.11	2419	201	0.78	2618	219	0.89	2546	2.53	19.33	9.33	1.03
420075	000081	264	7.01	91	9.92	287	2.10	2427	228	1.80	2367	248	1.90	2387	2.55	36.68	7.23	0.96
420196	000196	180	4.76	99	11.95	241	1.03	2122	192	0.90	2267	209	0.94	2240	2.42	20.46	8.28	1.03
420380	000480	269	6.25	61	10.68	375	2.11	946	339	1.58	1159	351	1.76	1084	3.65	34.43	3.18	0.92

DETROIT

1970 VEHICLES

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COLD START TEST DATA COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HCCF
420273	000277	444	8.75	90	9.00	427	2.59	656	308	2.36	890	341	2.44	808	4.43	58.25	2.38	0.34
423298	000317	398	7.33	103	9.77	328	2.68	564	285	2.80	658	300	2.75	625	3.81	65.65	2.29	0.34
423594	000855	119	1.11	165	14.21	293	2.36	1183	152	0.46	1532	201	1.12	1448	2.55	26.73	5.44	0.36
420607	000869	171	2.61	88	13.21	488	2.20	784	411	1.01	1048	437	1.42	955	4.39	30.46	3.30	1.16
420605	000867	89	0.56	85	12.37	212	1.19	492	181	0.66	597	171	0.84	560	2.18	17.98	2.37	1.21
420169	000169	132	0.73	285	14.49	253	2.46	872	162	0.56	1241	193	1.22	1111	2.63	31.28	4.30	0.92
420247	000247	91	0.31	251	14.39	237	1.29	846	146	0.19	1212	177	0.57	1083	2.41	14.61	4.59	1.01
420289	000303	247	7.11	101	10.10	429	4.26	641	265	2.09	1032	322	2.84	835	4.39	72.83	3.54	0.34
420208	000208	314	7.71	71	10.05	533	2.60	745	425	2.50	857	462	2.53	817	5.27	54.27	2.89	1.01
420322	000346	135	3.92	81	10.89	264	2.43	714	173	1.49	949	204	1.81	866	3.05	50.85	3.71	0.93
420384	000481	144	1.41	120	10.87	249	2.85	964	188	1.14	1335	209	1.73	1204	3.13	48.77	5.18	0.33
420250	000250	339	6.87	95	9.35	169	1.38	607	147	1.18	739	154	1.46	692	1.78	31.78	2.55	1.04
420416	000515	219	3.02	119	12.92	199	3.02	714	95	0.58	964	131	1.43	876	1.51	31.13	2.95	0.95
420418	000517	250	5.51	86	11.21	161	1.77	778	97	1.00	849	113	1.26	824	1.37	27.42	2.32	0.96
420446	000567	360	9.49	62	9.64	223	2.39	1138	158	1.77	1362	180	1.93	1283	2.08	43.10	4.70	1.03
420454	000599	140	4.42	79	12.08	299	2.35	970	153	1.65	740	204	1.89	680	2.12	36.97	2.11	0.97
420585	000844	409	7.81	87	9.81	228	1.34	827	138	1.27	1001	163	1.50	940	1.96	32.60	3.62	1.09
420595	000856	211	1.37	197	13.14	234	0.30	753	134	0.37	772	163	0.55	765	1.95	11.97	2.82	1.03
420597	000858	501	9.15	77	8.75	448	2.57	709	355	3.21	783	387	2.98	757	4.03	58.30	2.55	1.05
420598	000859	335	4.93	138	11.44	247	2.72	811	131	1.06	1022	171	1.64	948	1.98	35.70	3.55	1.05
420600	000861	172	0.27	366	14.27	224	1.46	837	132	0.17	890	164	0.62	871	1.90	13.49	3.21	1.03
420603	000865	243	6.29	112	10.82	167	1.15	1074	114	1.17	1013	132	1.16	1034	1.53	25.25	3.80	1.03
420637	000871	250	3.43	157	11.30	260	3.10	812	156	0.44	1114	192	1.63	1008	2.22	35.48	3.65	1.01
420129	000128	127	3.81	79	12.24	231	3.75	521	142	0.05	680	194	1.32	624	2.02	37.56	1.88	0.94
420468	000616	224	6.11	67	10.46	213	3.01	1013	112	1.21	1390	147	1.83	1258	1.86	43.69	4.69	0.35
420531	000704	154	3.31	107	12.73	142	1.49	754	79	0.49	930	101	0.83	907	1.17	18.07	3.02	0.93
420583	000842	317	5.90	138	13.58	381	1.67	1023	374	1.62	1185	376	1.63	1128	4.29	34.83	4.25	1.06
420584	000843	314	7.48	94	9.42	303	3.05	1216	183	1.95	1480	224	2.33	1387	2.59	50.72	5.11	1.03
420599	000860	188	6.17	87	10.74	316	2.32	749	191	1.50	999	234	1.78	911	2.43	34.82	2.95	1.01
420601	000862	186	3.88	109	12.02	139	2.24	463	59	0.64	535	83	1.20	548	0.96	26.12	1.98	1.02
420614	000890	129	0.50	413	14.19	129	0.76	1903	110	0.45	2179	116	0.55	2082	1.47	13.13	7.70	0.34
420633	000920	116	1.08	93	13.66	443	2.50	970	353	0.83	1085	384	1.41	1044	4.33	30.24	3.72	1.01
420038	000045	211	0.90	169	14.00	311	2.09	1182	189	0.34	1680	231	0.35	1505	2.67	20.64	5.15	0.36
420010	000467	367	4.38	79	11.47	527	2.64	764	404	1.13	1119	447	1.60	996	4.65	33.06	3.03	0.95
420042	000037	180	0.80	201	14.28	227	1.08	1266	159	0.27	1496	192	0.55	1415	2.10	11.95	4.47	0.89
420046	000043	374	4.90	142	11.31	381	2.05	1183	302	1.67	1222	333	1.80	1208	3.85	39.11	3.35	0.92
420150	000150	470	8.80	57	8.99	433	3.36	685	345	1.33	887	355	2.46	831	4.11	53.56	3.22	1.02
420181	000181	259	4.57	69	11.69	332	0.17	294	191	1.47	600	240	2.76	432	2.78	60.09	1.92	1.10
420263	000263	178	0.76	177	14.35	274	2.04	937	158	0.37	1201	198	0.95	1115	2.23	20.68	3.76	0.95
420307	000326	183	0.68	322	14.05	139	0.44	1243	157	0.24	1599	166	0.31	1476	1.92	6.74	4.82	0.91
420319	000343	831	6.48	34	9.83	436	2.14	522	630	2.15	447	582	2.14	473	6.51	46.59	1.50	0.83
420320	000344	243	3.75	117	12.48	301	3.29	702	166	0.96	1044	213	1.77	924	2.46	38.53	2.93	0.83
420365	000431	463	3.03	476	12.53	457	3.22	1554	333	1.08	1302	376	1.82	1780	4.36	39.62	6.22	0.98
420401	000500	437	9.99	34	8.21	445	2.89	354	286	2.85	430	341	2.86	383	3.95	62.26	1.32	0.97
420405	000504	280	3.04	91	12.45	352	3.45	858	216	1.16	1153	263	1.72	1069	3.04	41.60	3.68	0.91
420407	000506	336	6.60	70	9.34	329	2.06	1281	261	1.76	1301	284	1.86	1293	3.29	40.43	4.29	0.93
420417	000516	459	9.99	53	8.27	616	3.21	642	476	3.34	916	538	3.64	816	5.60	71.22	2.42	0.93
420512	000670	1629	10.30	68	7.46	1027	4.32	524	758	3.95	1114	876	4.07	1012	9.13	72.63	3.08	0.95
420547	000752	312	7.82	77	9.03	463	3.73	801	373	2.35	1308	404	2.83	1130	4.21	55.37	3.47	0.96
420561	000778	185	5.72	90	10.66	292	3.81	956	211	1.63	1253	239	2.04	1140	2.49	39.91	3.43	0.93

DETROIT 1979 VEHICLES COLD START TEST DATA

		-----CYCLE 7 IDLE-----				---CYCLES 1-4---			---CYCLES 6-7---			---COMPOSITE----			-----MASS EQUIVALENT----			
CAR NO	ROV NO	HC	CO	NO	CO2	HC	CO	NO	HC	CO	NO	HC	CO	NO	HC	CO	NOXC	NOCF
420647	201010	467	7.38	93	10.00	514	3.29	1541	409	1.74	2176	452	2.28	1953	5.24	43.64	6.78	0.97
420648	001011	428	7.14	66	10.67	667	7.37	210	266	2.75	374	406	4.36	316	4.63	94.75	1.09	0.97
420649	001013	627	0.16	59	8.36	386	0.84	756	352	0.30	775	363	0.48	768	3.78	9.39	2.40	0.98
420650	001015	651	6.04	116	11.14	678	2.24	1517	522	4.07	829	576	3.42	1063	6.66	74.32	3.67	0.97
420657	000658	346	8.42	80	9.36	430	5.07	842	362	1.30	1321	385	3.00	1153	4.58	71.46	4.16	0.92
420337	000381	109	1.13	113	14.23	725	0.57	954	535	0.56	973	601	0.52	966	6.26	10.17	2.78	0.99
420472	000621	193	4.03	64	11.92	310	4.25	784	236	3.09	543	261	3.49	627	3.02	75.38	2.14	0.96
420473	000622	347	7.19	56	9.76	267	1.14	1314	275	1.64	1417	272	1.[illegible]	1380	3.45	34.85	5.26	0.96
420475	000624	298	6.97	66	10.16	431	6.44	924	252	1.76	1363	314	3.39	1209	3.93	80.93	4.47	0.96
420491	000638	238	6.30	47	6.74	446	4.93	958	267	2.17	1438	323	3.12	1270	3.81	67.81	4.25	0.96
420557	000763	586	6.93	62	9.29	455	5.32	362	468	4.15	833	463	4.55	843	4.82	89.63	1.00	0.92
420586	000847	288	6.68	95	10.46	242	3.08	735	190	2.49	791	208	2.69	771	2.84	68.38	3.59	1.11
420604	000866	381	6.50	100	13.20	406	3.11	1182	359	1.66	1644	406	2.16	1442	5.54	55.39	7.50	1.20
420606	000868	257	2.96	126	12.33	268	1.15	1163	231	0.77	1335	242	0.90	1313	3.07	21.48	6.18	1.20
420608	000870	177	1.76	134	13.25	120	0.47	547	100	0.42	510	107	0.43	519	1.46	11.02	2.55	1.17
420609	000871	285	3.54	115	12.44	275	1.20	1474	266	0.95	1554	269	1.03	1526	3.67	26.41	7.47	1.16
420622	000903	173	0.80	111	13.24	232	0.81	1015	194	0.49	1041	207	0.54	1031	2.63	12.88	4.39	1.03
420638	000972	302	3.35	117	11.29	367	4.01	1460	295	0.63	2153	320	1.04	1910	4.37	40.75	7.87	0.98
420639	000973	223	4.51	95	11.06	295	2.63	1262	223	1.11	1610	246	1.66	1485	3.10	39.63	5.91	1.01
420004	000004	285	1.22	221	13.80	272	1.44	1119	249	0.79	1122	257	1.01	1120	3.50	25.83	4.42	0.96
420005	000005	463	6.30	62	9.07	239	3.13	773	231	2.31	1076	234	2.59	969	3.93	66.25	3.82	0.96
420006	000006	142	0.71	166	14.43	143	0.70	959	157	0.41	1018	169	0.51	997	2.90	13.04	3.46	0.97
420009	000044	210	6.20	85	10.51	218	2.41	859	153	1.67	949	175	1.92	917	2.38	49.11	3.40	0.88
420013	000021	177	1.42	145	13.36	194	0.71	1375	194	0.65	1305	194	0.67	1329	2.64	17.13	5.22	0.94
420020	000011	188	1.53	204	13.86	252	2.01	1039	210	0.96	1247	224	1.12	1174	3.05	33.76	4.79	0.97
420024	000008	138	2.07	114	12.35	232	1.04	856	159	0.76	913	184	0.85	893	2.51	21.74	3.63	0.97
420026	000025	258	4.76	92	11.37	249	1.30	695	170	1.16	825	211	1.41	773	2.87	36.06	3.00	0.92
420028	000017	255	4.76	116	11.67	249	1.72	1306	194	1.50	1048	213	1.57	1149	2.90	40.15	4.52	0.95
420029	000019	168	1.66	181	13.52	196	1.04	998	160	0.69	1255	172	0.81	1165	2.34	20.71	4.57	0.94
420063	000062	269	4.86	95	11.72	241	2.16	703	213	1.38	944	236	1.65	861	3.21	42.20	3.45	0.96
420090	000096	279	7.01	89	10.33	262	2.18	750	180	1.53	796	205	1.79	779	2.83	44.76	3.18	0.93
420134	000133	514	4.77	111	11.69	427	2.07	1226	328	1.28	1389	362	1.55	1273	4.04	33.75	5.20	0.97
420174	000174	265	4.92	101	11.45	378	4.56	737	264	2.29	940	316	3.14	830	4.31	80.52	3.31	0.94
420179	000179	414	8.34	82	10.38	458	3.93	757	365	3.71	725	411	3.78	734	5.22	90.05	2.72	0.94
420243	000243	369	7.31	90	10.75	293	2.18	716	210	1.66	975	229	1.86	883	3.00	47.18	3.57	0.97
420251	000251	377	9.42	62	9.61	311	2.66	990	282	2.79	1057	292	2.74	1043	3.98	70.27	4.31	0.97
420257	000257	313	5.94	84	10.74	401	1.92	883	277	1.82	944	320	1.85	924	3.71	40.27	3.06	0.93
420260	000260	306	8.36	77	9.91	276	3.61	578	212	2.84	846	234	3.19	752	3.19	79.50	2.31	0.92
420321	000345	243	4.94	104	11.39	288	1.40	717	182	1.28	953	191	1.32	870	2.60	33.85	3.25	0.89
420446	000654	667	11.39	57	7.17	637	6.55	344	720	6.47	455	760	6.49	417	7.91	126.73	1.25	0.94
420641	000978	233	6.02	82	10.06	258	3.26	506	172	2.38	578	202	2.63	552	2.75	67.44	2.27	0.98
420644	000981	252	3.65	97	12.10	241	3.12	702	183	2.22	633	203	2.53	657	2.77	64.88	2.69	0.96
420387	000484	155	0.07	170	13.43	316	3.56	901	197	0.83	1139	234	1.79	1055	3.25	45.64	4.13	0.93
420400	000499	263	5.41	73	10.30	253	3.33	863	178	1.55	1178	217	2.15	1063	2.96	55.13	4.11	0.91
420426	000525	211	5.61	73	11.01	268	3.24	943	144	1.72	976	167	2.25	927	2.55	57.69	3.68	0.95
420442	000563	263	4.81	85	11.47	255	3.14	773	136	1.57	864	167	2.11	845	2.28	54.11	3.51	0.97
420474	000623	313	7.49	63	9.17	345	4.15	744	214	2.45	1306	253	3.05	1179	3.53	78.21	4.86	0.94
420505	000663	162	1.25	149	13.60	214	2.38	982	142	0.77	1316	167	1.33	1139	2.28	34.10	4.76	0.94
420524	000697	221	6.50	88	10.55	237	2.78	930	163	1.84	1231	185	2.16	1127	2.52	55.39	4.60	0.97
420645	000982	464	1.93	42	7.43	341	0.61	293	64	0.77	257	472	0.71	269	5.39	15.22	0.91	0.98

DETROIT

1975 VEHICLES

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COLD START TEST DATA COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HCCF
420402	000483	504	0.58	56	10.70	405	1.38	333	379	0.74	234	388	0.86	268	4.42	20.55	0.97	1.03
420404	000031	296	7.17	63	10.06	255	1.56	530	130	2.14	583	212	1.93	564	2.68	43.36	2.16	0.92
420443	000442	216	2.76	190	12.81	200	1.33	713	120	0.66	858	146	1.26	807	2.01	32.22	2.92	0.86
420462	000460	218	3.82	85	12.60	215	1.87	576	124	0.84	645	155	1.20	620	1.96	28.54	2.30	0.95
420481	000483	103	0.07	221	12.29	154	0.87	781	95	0.17	832	115	0.41	814	1.56	10.48	3.16	0.93
420096	000094	213	1.50	171	13.54	185	1.14	839	152	0.46	1089	163	0.69	1001	2.22	17.64	4.24	1.01
420170	000170	291	4.39	96	11.74	256	1.98	754	181	1.12	1125	206	1.42	995	2.81	36.41	3.76	0.91
420187	000187	226	3.33	103	12.67	258	2.37	641	153	0.94	1104	183	1.44	941	2.40	34.37	3.47	0.96
420188	000188	151	1.73	158	13.71	182	1.46	574	81	0.53	569	116	0.89	564	1.47	21.24	2.07	0.96
420205	000205	169	0.56	250	14.35	171	0.92	707	103	0.29	705	124	0.51	705	1.60	12.17	2.45	0.89
420336	000380	366	3.62	112	12.00	258	2.84	614	200	0.83	1075	220	1.53	913	3.00	39.23	3.91	0.99
420261	000261	153	0.93	211	14.13	159	1.58	634	106	0.41	738	120	0.81	701	1.74	20.76	2.68	0.91
420392	000491	215	2.16	131	13.51	232	1.47	966	183	0.64	1274	200	0.93	1161	2.73	23.94	4.85	0.99
420415	000514	180	2.63	142	13.02	223	2.01	783	212	0.91	1037	213	1.24	948	2.93	33.08	3.65	0.92
420437	000558	260	6.31	75	9.75	247	3.65	421	172	1.92	633	205	2.52	559	2.83	64.62	2.38	1.02
420504	000667	241	3.58	93	12.45	247	1.68	802	183	1.13	1062	198	1.46	958	2.70	34.83	3.66	0.91
420634	000721	213	1.76	162	13.16	181	1.02	1154	173	0.65	1543	175	0.77	1410	2.39	19.74	6.20	1.04
420109	000110	405	6.70	67	10.10	300	2.44	662	257	1.46	996	272	1.80	879	3.71	46.15	3.23	0.83
420190	000190	224	5.30	80	11.09	197	1.33	718	173	1.09	935	181	1.18	858	2.47	30.25	4.03	1.07
420191	000191	273	5.86	64	10.36	353	4.17	384	299	2.90	476	313	3.34	443	4.05	79.73	1.76	1.02
420449	000572	298	5.27	62	10.83	232	1.50	704	210	1.17	1123	217	1.28	976	2.96	32.82	4.46	1.09
420458	000606	235	1.75	79	12.67	245	1.13	1029	186	0.56	1502	206	0.72	1336	2.81	18.45	5.30	0.94
420582	000833	582	3.51	39	6.96	515	1.67	475	504	1.63	678	532	1.80	606	6.76	38.19	2.54	1.07
420591	000852	745	8.42	73	9.04	513	1.76	657	466	1.44	1084	492	1.55	934	6.58	39.75	3.35	1.01
420397	000496	152	0.83	118	13.39	210	0.50	1307	221	0.21	1515	217	0.31	1442	3.13	8.39	5.68	0.89
420398	000497	70	0.08	155	14.11	122	1.16	642	81	0.20	869	95	0.53	783	1.37	15.97	3.12	0.89
420408	000507	342	5.24	73	11.30	327	2.63	1076	326	1.41	1197	326	1.83	1154	4.70	49.56	5.07	0.99
420444	000565	236	3.97	66	11.33	233	1.46	813	166	0.80	1068	189	1.03	980	2.72	23.24	4.41	1.01
420445	000566	356	6.65	51	10.33	327	2.91	1116	233	1.35	1730	258	1.89	1515	3.72	51.18	6.67	0.99
420049	000047	226	3.53	92	12.02	202	1.52	839	233	1.88	786	243	1.75	804	3.08	41.69	2.79	0.89
420055	000056	128	1.43	126	13.91	140	1.50	596	109	0.80	774	113	1.04	711	1.50	24.77	2.56	0.90
420112	000113	320	9.54	56	8.68	318	2.83	538	224	2.33	671	256	2.50	665	3.43	64.11	2.56	0.96
420330	000489	136	3.44	71	12.41	202	1.59	690	165	1.70	674	170	1.65	647	2.41	33.33	2.41	0.95
420461	000603	256	7.04	53	9.97	249	3.37	733	190	2.24	902	210	2.63	864	2.67	62.78	3.10	0.96
420467	000615	241	5.85	60	10.91	232	2.26	833	157	2.05	933	183	2.12	726	2.42	50.61	2.65	0.93
420483	000631	237	5.62	58	9.83	225	1.61	782	179	1.63	917	195	1.62	834	2.66	41.54	3.19	0.95
420493	000651	165	1.81	66	13.20	228	1.30	670	170	1.06	902	183	1.31	795	2.57	31.59	2.97	0.96
420434	000652	221	3.01	66	12.73	260	1.71	747	187	1.21	879	205	1.38	832	2.60	32.06	2.96	0.91
420564	000781	163	1.97	110	13.01	187	1.33	1068	143	0.73	1356	158	0.93	1268	2.15	23.79	4.96	0.95
420635	000869	368	8.50	67	7.84	341	2.86	502	243	2.97	467	277	2.92	479	3.78	74.88	1.93	0.93
420115	000118	137	4.45	75	11.18	157	1.13	1157	132	0.89	1296	140	0.97	1247	2.01	26.26	5.40	0.97
420457	000605	245	4.91	61	11.21	159	1.57	866	110	1.04	1045	127	1.25	975	1.83	33.85	4.08	0.96
420581	000840	111	0.37	186	13.91	126	0.45	1138	117	0.52	1175	120	0.63	1143	1.73	13.26	5.55	1.06
420590	000851	253	2.41	57	12.23	162	1.06	1172	111	0.65	1234	124	0.73	1205	1.84	21.39	6.35	1.19
420630	000916	211	3.28	114	12.22	142	1.39	826	104	1.00	894	117	1.13	870	1.68	30.60	3.94	1.02
420589	000850	290	8.18	106	12.38	209	2.74	1054	179	0.75	1093	183	0.74	1020	2.40	17.63	4.46	1.12
420168	000168	164	3.54	57	12.61	174	1.19	745	136	0.67	956	149	0.85	878	2.14	22.95	3.64	0.96
420290	000304	141	2.06	95	12.84	244	3.57	411	160	2.12	419	164	2.62	416	2.72	70.96	1.72	0.93
420423	000522	132	2.66	93	12.91	145	1.74	776	101	1.02	688	114	1.27	718	1.64	34.39	2.98	0.96
420453	000576	122	1.83	64	12.99	131	1.74	842	95	0.80	1030	107	1.12	1020	1.54	30.33	4.30	0.95

DETROIT 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	IDLE HC	IDLE CO	IDLE NO	IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT NOXP
420592	000853	253	6.64	91	10.55	161	2.93	355	137	3.00	368	140	2.99	363	2.03	80.74	1.52	0.85
420629	000912	267	5.76	75	10.35	290	5.66	393	187	2.53	758	223	3.62	630	3.21	98.04	3.06	1.10
420171	000171	217	3.78	74	12.36	367	4.78	685	202	1.63	1011	266	2.73	896	3.38	65.16	3.42	0.98
420669	000617	237	8.38	61	9.65	619	7.71	477	184	2.91	936	334	4.58	814	4.24	107.34	3.00	0.94
420476	000618	284	6.35	56	9.38	487	6.08	685	205	2.09	1442	303	3.80	1209	4.37	102.42	5.22	0.87
420497	000655	234	3.89	70	12.10	267	3.26	918	207	1.77	1388	227	2.28	1223	3.27	61.75	5.14	0.75
420015	000026	206	3.16	109	12.71	317	4.58	823	179	1.24	1166	251	2.43	1045	3.18	57.88	4.07	1.00
420023	000027	360	8.56	74	9.25	338	3.11	716	247	2.57	884	278	2.75	825	3.52	65.51	3.20	1.00
420033	000007	129	1.35	142	13.75	204	3.37	498	131	1.13	772	156	1.92	676	1.97	45.73	2.61	0.93
420036	000033	471	10.51	64	8.22	449	4.25	634	311	3.46	663	357	4.73	782	4.55	88.85	2.88	0.94
420050	000048	355	9.17	61	8.91	520	5.93	556	240	3.01	757	338	4.04	686	4.28	96.24	2.71	1.02
420066	000073	198	2.02	151	13.24	259	2.54	814	178	1.20	1038	206	1.66	908	2.61	39.54	3.36	1.02
420068	000072	218	5.85	111	11.17	242	3.43	619	133	2.63	762	208	2.94	638	2.83	70.08	2.78	1.02
420100	000101	601	8.58	43	6.51	650	6.19	759	326	2.71	1033	370	2.97	960	5.32	77.50	4.62	1.06
420332	000587	175	2.43	102	13.88	194	2.03	761	131	0.63	1041	140	1.17	942	2.14	31.58	4.05	0.97
420125	000123	257	4.86	73	10.91	196	1.66	761	177	1.01	1139	183	1.23	1038	2.59	33.31	4.46	0.97
420217	000217	224	2.08	116	13.41	229	2.58	634	148	0.56	1217	175	1.28	1017	2.52	34.67	4.49	1.00
420262	000262	223	2.33	125	12.79	161	0.73	1262	155	0.45	1470	157	0.61	1397	2.26	16.51	5.02	0.96
420389	000488	274	5.47	81	11.08	264	2.57	1030	233	1.54	1388	243	1.90	1262	3.50	51.45	5.10	0.91
420449	000569	217	3.21	83	12.47	272	4.28	955	183	1.13	1481	214	2.27	1296	3.08	61.43	5.52	0.96
420464	000612	158	2.41	113	12.79	166	1.42	1247	130	0.74	1146	143	1.00	1181	2.06	27.08	5.36	1.02
420501	000659	348	5.72	61	10.29	368	3.84	1136	258	1.45	1725	291	2.24	1518	4.19	61.75	6.32	0.94
420502	000660	223	3.21	78	12.67	181	1.32	736	133	0.68	859	149	1.11	805	2.14	30.06	3.37	0.94
420504	000662	196	3.74	105	12.15	246	2.89	822	178	1.54	1234	201	2.01	1030	2.89	54.44	4.56	0.94
420508	000843	273	4.66	107	11.40	219	1.95	1496	182	1.24	2023	194	1.44	1837	2.79	40.09	9.33	1.11
420149	000149	207	6.53	70	10.96	186	2.73	931	144	1.03	1345	158	2.01	1221	2.37	56.67	3.54	0.98
420157	000157	241	8.15	43	9.03	213	2.92	655	176	2.26	930	184	2.69	827	2.82	70.20	3.74	0.98
420402	000501	182	2.86	113	12.70	176	1.75	1183	139	0.77	1665	155	1.11	1476	2.32	31.29	6.76	0.98
420459	000607	187	4.02	74	11.38	159	2.00	724	123	1.27	1121	139	1.52	982	2.08	42.85	4.37	0.96
420465	000613	115	0.70	205	14.06	177	1.73	1167	151	1.28	1478	159	1.45	1336	2.43	40.87	6.16	1.00
420490	000637	118	1.41	137	13.66	126	1.33	1345	114	0.74	1763	118	0.94	1616	1.77	26.53	7.09	0.95
420573	000838	164	2.56	152	12.44	142	1.32	1142	133	1.01	1493	136	1.11	1370	2.04	31.29	6.78	1.07
420200	000200	180	1.69	104	13.52	333	2.25	874	244	1.00	902	275	1.43	832	2.18	21.30	2.05	0.94
420393	000492	358	7.54	61	9.19	385	3.15	716	273	2.69	708	315	2.85	711	2.50	42.40	1.61	0.93
420419	000518	196	0.28	73	12.72	369	2.10	1116	225	1.03	1140	275	1.40	1131	2.18	20.83	2.52	0.92
420577	000836	162	1.40	109	11.84	219	0.66	2091	173	0.71	1843	182	0.84	1933	1.69	11.43	5.22	0.99
420034	000012	110	1.92	100	11.62	238	1.44	1368	259	0.91	1364	272	1.15	1352	1.96	15.56	2.79	0.93
420064	000066	487	11.29	88	7.34	433	3.55	1501	383	3.65	1276	400	3.61	1354	2.88	48.94	2.73	0.90
420103	000104	122	1.38	94	14.10	274	1.37	1725	220	0.55	1707	245	0.83	1771	1.77	11.27	3.78	0.96
420106	000107	204	1.93	94	13.15	257	0.92	1985	156	0.55	2087	172	0.67	2051	1.77	11.64	5.59	0.98
420152	000152	206	4.12	86	11.88	327	1.56	2224	249	1.22	2012	276	1.33	2086	2.21	20.03	5.31	1.03
420162	000162	219	6.05	176	10.72	439	3.01	1711	370	1.71	1961	394	2.16	1873	2.85	29.33	3.89	0.93
420164	000164	117	0.78	81	14.54	431	1.56	1606	429	0.56	1768	429	0.91	1711	3.10	12.35	3.68	0.97
420166	000166	120	2.91	66	13.04	294	1.65	1553	153	0.73	1731	189	1.05	1703	1.36	14.25	3.69	0.97
420172	000172	201	3.93	78	11.84	860	5.48	894	529	3.67	724	644	3.82	784	4.65	51.88	1.67	0.93
420180	000180	245	6.32	67	10.12	534	2.70	1035	473	1.83	1161	494	2.13	1137	3.57	26.92	2.61	1.03
420184	000184	144	3.30	65	12.76	312	2.42	1584	185	0.78	1820	223	1.52	1680	1.65	20.64	3.21	0.90
420193	000193	164	4.02	96	12.08	299	1.[illegible]	1718	206	0.38	1877	237	1.49	1696	1.71	20.23	3.11	0.93
420197	000197	286	2.76	96	12.96	273	1.[illegible]	1643	156	0.85	1703	224	1.07	1613	1.62	14.52	3.74	1.04
420199	000199	167	6.01	89	10.72	283	3.0[illegible]	[illegible]	180	[illegible]	121	218	3.02	1154	1.57	41.01	2.35	0.91

DETROIT

1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
420203	000203	195	4.61	107	11.90	255	1.84	1670	197	1.36	1538	217	1.52	1584	1.74	22.90	3.97	1.01
420466	000614	159	2.01	52	7.31	340	1.25	2284	283	1.14	2241	302	1.17	2256	2.42	17.62	5.21	0.73

TABLE B-5

Denver

DENVER

1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
520014	100563	196	3.82	237	11.07	350	2.78	1634	245	2.23	1769	281	2.42	1721	2.88	46.72	2.47	1.00
520128	100511	140	2.09	127	13.02	476	4.06	764	294	3.76	798	354	3.86	786	3.68	75.52	2.59	1.03
520129	100465	174	1.42	172	13.44	475	2.96	1003	388	2.78	1135	419	2.84	1088	3.86	47.36	2.33	0.96
520139	100564	238	4.61	108	11.51	532	3.34	760	435	2.72	855	469	2.93	821	4.52	50.93	2.34	1.00
520150	100492	138	0.51	348	13.76	335	2.12	1660	211	0.57	2148	254	1.11	1977	2.61	21.43	6.22	0.93
520185	100585	224	3.58	216	12.41	302	1.77	1960	228	1.29	2162	253	1.45	2084	2.60	27.99	7.16	1.09
520308	100596	364	2.99	155	12.48	573	1.63	1377	433	0.91	1784	481	1.18	1641	4.94	22.77	5.49	1.06
520309	100594	273	1.98	318	13.01	360	1.16	1543	280	0.91	1948	315	0.99	1806	3.23	19.11	6.06	1.06
520323	100614	186	3.04	124	12.81	372	3.84	725	262	3.24	884	300	3.45	828	2.77	59.96	2.53	1.08
520315	100610	161	2.34	130	13.19	518	3.35	1216	374	3.61	935	424	3.51	1033	3.92	61.01	2.95	1.00
520067	100057	165	1.24	134	12.47	333	3.73	884	345	2.40	1244	361	2.86	1118	3.71	55.22	3.18	0.90
520312	100605	180	2.53	237	13.08	334	3.79	1027	240	2.79	1356	272	3.13	1242	2.79	60.43	3.04	1.00
520015	100017	208	3.15	118	12.24	342	1.91	787	307	1.38	918	319	1.56	872	3.63	33.40	2.79	0.90
520173	100432	210	2.62	215	12.36	342	2.34	1085	250	1.80	1152	282	1.99	1128	2.90	38.22	3.20	0.90
520211	100521	207	3.56	130	12.01	460	2.83	747	318	2.43	960	354	2.56	820	3.74	49.43	2.59	1.00
520310	100595	252	4.63	95	11.33	366	2.20	1210	310	2.09	933	322	2.12	1029	3.31	40.93	3.44	1.06
520314	100603	250	4.57	110	11.45	1039	2.41	1027	303	2.22	1248	560	2.28	1170	7.10	54.31	4.53	0.99
520304	100591	89	1.50	57	10.51	409	2.39	1511	246	1.75	1789	303	1.97	1671	3.15	38.54	5.66	1.04
520068	100514	176	0.41	210	13.60	429	2.52	1478	340	2.04	1702	371	2.20	1682	4.70	52.40	6.64	1.01
520243	100496	255	4.30	103	10.89	524	3.24	888	333	2.72	1146	397	3.14	1057	5.06	74.79	4.09	0.99
520151	100514	206	4.19	652	10.39	408	3.[illegible]	1206	340	4.62	1177	376	4.33	1186	3.87	83.61	3.33	0.88
520264	100577	248	1.59	530	12.45	421	3.85	1357	308	4.19	1339	347	4.06	1345	3.57	76.40	4.16	0.98
520302	100584	153	2.62	147	12.74	445	4.84	863	284	4.04	1004	340	4.32	956	3.14	75.09	2.34	1.00
520317	100612	168	0.48	148	13.23	453	3.89	907	407	3.34	984	459	3.53	957	4.24	61.35	2.69	0.99
520020	100544	193	3.97	163	11.42	338	3.62	1543	313	3.24	1533	293	3.37	1536	2.92	73.24	5.46	1.00
520022	100616	329	9.39	93	9.60	537	6.27	749	344	4.30	1394	411	4.98	1168	4.75	108.22	4.20	1.01
520076	100701	276	8.37	120	9.80	669	5.01	1024	358	3.48	1504	466	4.14	1334	4.85	81.00	3.76	0.88
520110	100508	286	6.10	109	9.90	502	5.59	907	331	3.03	1606	415	3.92	1361	4.83	85.19	4.33	1.03
520206	100510	251	4.21	164	11.58	382	3.83	1658	241	1.87	2352	290	2.55	2109	3.35	55.41	7.74	1.03
520210	100545	188	2.53	135	12.60	402	4.23	1230	267	3.54	1127	301	3.78	1163	3.49	82.14	4.13	1.00
520216	100526	224	4.26	161	11.34	321	2.82	1857	214	2.24	2196	251	2.44	2077	2.93	53.02	7.40	1.00
520245	100495	551	10.15	88	7.70	1338	7.63	451	795	6.22	687	1006	6.58	606	10.48	128.75	1.92	0.92
520259	100469	240	5.79	128	10.90	438	4.16	1505	316	3.60	1737	351	3.79	1655	4.06	82.36	6.07	1.03
520262	100536	235	4.96	162	10.63	570	4.75	1258	242	2.60	1764	336	3.64	1579	4.12	75.63	5.58	0.99
520276	100509	328	5.43	85	10.17	511	3.47	1633	370	2.91	2011	417	2.96	1878	4.85	61.72	6.89	1.03
520300	100587	313	8.40	91	8.97	563	4.86	1321	332	3.82	1505	412	4.18	1440	4.76	90.83	5.57	1.00
520301	100590	382	7.69	109	9.53	538	4.91	1534	309	3.21	1718	468	3.80	1643	5.41	82.58	6.11	1.04
520016	100130	321	6.09	91	9.77	470	4.63	750	352	2.99	967	393	3.56	878	4.56	77.46	2.76	0.88
520017	100534	175	3.22	126	12.43	245	2.73	809	160	2.04	930	194	2.30	887	2.24	49.98	3.06	0.97
520066	100044	116	0.18	183	13.56	340	3.11	887	248	1.40	1231	280	1.93	1110	3.24	43.24	3.56	0.90
520082	100535	330	6.30	87	9.34	419	3.80	932	314	3.04	1163	350	3.30	1104	4.76	84.41	4.68	0.97
520098	100567	246	5.79	104	10.62	424	4.01	570	288	3.33	612	335	3.53	597	4.87	76.71	1.88	0.88
520100	100423	316	9.37	105	8.55	662	[illegible]	[illegible]	515	3.68	863	565	3.95	835	6.65	74.31	2.63	0.90
520104	100220	247	3.02	131	9.70	306	1.76	2207	322	1.98	2403	364	1.89	2361	3.98	41.07	7.49	0.90
520114	100468	272	7.56	88	9.69	278	3.68	883	224	2.88	807	242	2.81	826	2.80	61.06	3.02	1.03
520118	100043	279	2.72	183	13.67	335	2.73	1286	291	1.62	1745	323	1.86	1610	3.73	41.07	5.16	0.90
520126	100065	208	2.76	135	13.41	272	2.52	1001	232	2.25	1043	246	2.34	1024	2.84	50.85	3.23	0.88
520140	100528	134	3.53	115	13.17	272	3.07	[illegible]	224	2.[illegible]	1102	240	2.58	1035	2.77	56.06	3.69	1.00
520157	100478	301	5.08	112	10.78	367	3.73	[illegible]	288	3.[illegible]	772	315	3.45	756	3.66	74.37	2.70	1.01
520161	100560	222	5.92	167	10.87	244	2.96	1087	192	2.31	1345	210	2.41	1294	2.43	52.37	4.46	1.00

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DENVER

1973 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-6 HC	CYCLES 1-6 CO	CYCLES 1-6 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT MUCF
520204	100438	311	7.17	110	9.87	346	3.24	1312	291	2.87	1538	310	2.99	1458	3.58	64.97	4.73	0.91
520248	100470	146	2.21	256	13.07	211	1.87	970	188	2.53	965	196	2.33	965	2.26	50.63	3.53	1.03
520252	100505	336	10.01	85	7.85	331	4.70	644	265	3.85	856	307	4.14	710	4.20	105.90	3.37	1.03
520258	100386	307	3.18	114	12.00	389	2.53	985	319	2.22	991	343	2.32	988	4.67	59.34	3.44	0.88
520267	100527	169	1.69	139	13.46	226	1.36	1206	171	1.25	1320	189	1.24	1311	2.18	27.81	4.68	1.00
520272	100551	262	9.19	116	8.51	336	6.89	241	267	6.97	257	291	6.94	251	3.96	176.77	0.33	0.88
520360	100676	397	3.98	90	12.02	383	2.50	675	358	2.07	771	366	2.22	737	4.23	48.24	2.62	1.00
520004	100131	208	2.13	230	12.69	393	2.69	1458	284	2.16	1570	324	2.34	1536	4.37	53.85	5.66	0.88
520071	100025	218	5.39	105	10.76	393	3.95	768	236	3.05	939	276	3.36	879	3.76	85.94	3.25	0.88
520132	100161	266	3.88	121	11.36	576	5.02	1050	411	3.80	1320	468	4.22	1225	6.37	107.74	4.67	0.91
520181	100292	148	1.29	215	12.77	322	1.42	1589	272	1.43	1812	294	1.42	1716	3.73	33.83	5.99	0.88
520190	100257	212	4.91	101	11.52	541	4.57	766	283	1.80	1291	373	2.76	1107	4.73	65.74	3.30	0.90
520218	100471	236	5.56	113	10.51	338	2.70	1361	279	2.74	1358	299	2.72	1359	4.07	69.57	5.87	1.03
520250	100419	131	5.11	100	11.13	397	3.21	981	313	2.53	1240	342	2.76	1149	4.33	65.74	4.05	0.90
520255	100500	208	0.20	106	13.77	362	2.02	1171	192	1.15	1460	251	1.45	1358	3.41	37.08	5.85	1.03
520285	100546	231	5.29	104	11.05	437	4.40	1034	279	2.87	1425	355	3.43	1288	4.83	87.73	4.77	0.88
520307	100597	214	4.57	92	11.19	336	4.58	351	238	4.82	372	272	4.73	364	3.70	120.99	1.61	1.06
520002	100065	171	3.60	112	12.14	397	3.25	639	226	2.42	756	285	2.71	715	4.09	73.17	2.85	0.90
520003	100109	236	5.83	128	10.63	375	3.57	852	278	3.42	901	311	3.47	883	4.47	93.70	3.40	0.87
520071	100015	368	9.21	87	8.90	470	5.37	458	351	5.03	531	392	5.14	505	5.63	138.79	2.03	0.91
520265	100570	216	6.20	95	9.35	409	6.17	383	316	6.18	360	361	6.17	373	5.19	166.61	1.62	0.99
520141	100272	305	7.00	61	8.77	407	4.79	968	320	3.83	1386	350	4.15	1231	4.05	90.18	3.95	0.90
520329	100632	1735	5.19	30	6.48	392	4.26	769	903	3.62	1100	934	3.84	984	2.73	75.13	2.38	0.94
520125	100330	252	8.71	76	8.51	442	4.72	830	394	4.74	948	410	4.73	904	5.58	120.99	3.67	0.97
520183	100433	323	8.43	136	9.09	332	4.36	1207	292	4.55	1205	306	4.48	1205	4.16	114.59	4.60	0.91
520188	100250	261	4.60	102	11.03	299	3.07	474	218	3.00	587	246	3.19	547	3.12	75.99	1.92	0.90
520214	100475	146	1.95	68	9.83	300	2.46	1012	281	2.49	1079	287	2.47	1055	3.64	58.86	4.24	1.03
520263	100481	201	0.73	84	13.02	425	3.57	621	368	2.40	764	401	2.80	713	4.58	60.06	2.52	1.01
520320	100624	855	7.41	104	7.29	628	7.39	349	560	7.42	348	583	7.40	348	7.39	176.28	1.25	0.93
520325	100621	2955	5.69	69	5.30	3305	5.69	197	3238	5.59	222	3327	5.62	213	37.93	120.28	0.73	0.99
520005	100232	611	0.14	81	10.43	726	1.41	1791	664	1.21	1678	685	1.27	1730	5.91	20.59	4.06	0.88
520260	100506	333	8.88	77	8.78	653	3.20	1368	541	3.14	1291	580	3.15	1317	5.55	56.78	4.00	1.03
520270	100474	190	3.10	134	12.34	567	3.97	594	398	3.83	561	464	3.87	572	4.00	82.78	1.56	1.03
520293	100588	238	6.72	93	10.13	560	2.24	1241	383	2.29	1268	444	2.27	1258	3.83	36.82	3.47	1.04
520305	100589	106	0.29	114	13.72	624	2.11	1232	393	1.99	1243	473	2.03	1239	4.08	32.93	3.43	1.04
520018	100261	323	4.42	152	11.61	425	1.30	2831	325	1.02	2832	359	1.11	2831	3.43	10.94	7.55	0.90
520083	100155	138	1.13	426	12.34	330	4.23	687	235	4.61	643	328	4.47	658	3.13	80.33	1.74	0.90
520101	100139	264	5.58	129	10.66	373	1.56	2046	271	1.26	2371	306	1.36	2257	2.92	24.43	5.84	0.88
520107	100087	233	6.47	98	9.77	600	5.55	443	421	4.13	928	483	4.62	829	4.17	74.95	1.37	0.90
520174	100218	273	3.74	145	8.70	550	1.71	2600	382	1.37	2816	440	1.52	2740	4.21	27.31	7.24	0.90
520240	100504	306	5.00	123	11.13	461	1.28	2171	324	1.40	2235	371	1.35	2212	3.20	21.89	6.06	1.03
520256	100388	240	3.01	142	12.64	447	1.99	1465	321	1.49	1587	365	1.65	1537	3.49	29.65	3.98	0.88
520266	100507	164	5.41	115	10.96	397	3.10	867	294	3.00	926	330	3.09	906	3.15	55.52	2.73	1.03
520019	100056	333	8.21	98	9.35	333	4.74	435	224	3.29	535	262	3.79	520	3.03	82.16	1.65	0.89
520021	100138	243	4.42	143	11.46	277	2.43	731	230	2.14	794	246	2.24	771	3.12	53.35	2.44	0.88
520044	100501	194	0.38	229	13.86	417	2.80	886	283	1.83	925	333	2.16	911	3.85	46.93	3.33	1.03
520112	100572	219	0.90	268	13.64	719	3.37	745	228	2.27	675	399	2.65	699	4.61	57.59	2.44	0.98
520166	100176	365	3.38	156	8.87	619	1.83	2034	496	2.13	2028	540	2.02	2030	6.25	43.90	6.48	0.89
520175	100271	188	0.77	246	13.70	283	2.18	969	235	2.36	761	251	2.29	811	2.90	49.76	2.60	0.90
520176	100493	215	3.23	162	12.43	625	1.69	921	560	1.32	1191	569	1.44	1096	5.93	28.17	3.49	0.99

DENVER 1970 VEHICLES COLD START TEST DATA

		------CYCLE 7 IDLE------				---CYCLES 1-4---			---CYCLES 6-7---			---COMPOSITE----			------MASS EQUIVALENT---			
CAR NO	RUN NO	HC	CO	%O	CO2	HC	CO	%O	HC	CO	%O	HC	CO	%O	HC	CO	NOXC	HUCF
520177	100228	312	2.49	208	10.00	640	2.69	1709	481	2.10	1722	536	2.30	1717	6.20	49.98	5.62	0.92
520221	100334	163	1.38	263	13.56	300	2.12	933	216	1.55	1080	245	1.74	1049	2.83	37.81	3.29	0.88
520227	100491	294	1.70	122	13.19	496	3.10	1243	367	2.06	1497	412	2.42	1408	4.76	52.59	4.98	0.93
520229	100293	240	0.04	307	13.62	300	2.25	906	252	1.86	1015	268	1.99	976	3.10	43.24	3.04	0.88
520241	100442	107	1.68	173	14.70	339	1.80	994	303	1.77	976	336	1.78	982	3.83	38.18	3.11	0.90
520253	100543	210	1.11	189	13.80	319	2.79	621	238	1.91	903	266	2.21	804	3.07	48.02	2.52	0.88
520289	100606	211	0.31	132	13.36	377	2.41	1233	300	1.33	1483	326	1.70	1333	3.77	36.94	5.00	1.00
520311	100599	172	0.32	201	14.12	327	1.99	1207	259	1.29	1276	282	1.53	1251	3.26	33.24	4.99	1.12
520051	100050	426	9.61	117	8.41	405	3.37	1364	398	3.31	1391	431	3.33	1381	5.46	73.32	4.86	0.90
520057	100003	628	9.46	99	8.59	820	3.44	1014	646	2.53	1239	706	2.84	1160	8.35	67.65	4.03	0.89
520061	100100	291	3.48	263	12.41	408	2.77	1754	295	2.40	1645	334	2.52	1633	3.86	54.76	5.30	0.88
520074	100021	222	1.41	244	13.50	329	2.30	1189	269	1.57	1341	289	1.82	1287	3.34	39.55	4.04	0.88
520124	100061	194	0.20	525	13.19	371	2.23	1375	313	1.48	1721	336	1.74	1599	4.26	41.45	5.52	0.99
520167	100485	310	6.43	101	10.30	541	9.10	176	428	3.25	898	467	5.23	645	5.93	126.02	2.18	0.87
520183	100280	260	5.11	113	10.77	514	2.42	1410	416	2.57	1386	450	2.51	1334	5.70	59.79	4.71	0.96
520198	100479	281	5.16	145	11.23	409	2.74	1237	353	2.22	1470	404	2.40	1388	5.12	57.17	5.45	1.01
520203	100487	186	0.81	266	13.48	425	3.55	970	236	1.40	1511	302	2.17	1321	3.49	47.15	4.08	0.87
520207	100566	222	4.56	159	11.79	238	1.61	933	192	1.90	1075	206	1.79	1046	2.63	42.63	4.01	0.98
520226	100476	233	4.30	151	12.08	518	5.38	808	263	2.37	1380	352	3.42	1179	4.07	74.32	4.22	1.01
520233	100503	289	5.94	113	10.71	387	2.44	1137	256	2.62	1209	301	2.55	1183	3.48	55.41	4.33	1.03
520235	100629	257	1.87	253	13.35	335	2.69	788	224	1.89	917	262	2.16	871	3.03	46.93	2.62	0.85
520251	100489	305	6.14	115	10.78	398	2.25	1087	320	2.40	1129	347	2.34	1114	4.01	50.85	3.94	0.99
520254	100455	132	0.23	223	13.38	251	1.25	1134	190	0.57	1457	211	0.80	1364	2.44	17.38	4.83	0.99
520318	100622	253	2.83	159	12.87	385	1.65	1259	257	1.68	1317	301	1.66	1236	3.81	33.54	5.07	1.00
520355	100708	132	0.13	430	13.77	324	1.12	1432	236	1.25	1531	273	1.20	1436	3.22	26.07	5.52	1.04
520372	100791	269	7.26	43	10.17	420	3.56	434	341	4.06	412	368	3.88	419	3.83	75.91	1.21	0.91
520058	100203	319	2.00	275	9.78	573	1.65	2384	408	2.06	2103	465	1.91	2201	6.33	48.85	9.33	0.90
520086	100231	345	5.45	136	11.05	493	1.70	1932	346	1.44	1771	397	1.53	1840	5.40	39.13	7.07	0.92
520095	100532	175	0.33	337	14.07	256	1.53	1076	166	0.84	1267	197	1.10	1200	2.68	28.13	4.87	0.97
520146	100101	365	1.38	303	13.27	653	3.23	1033	422	2.95	1310	502	3.04	1213	6.83	77.76	4.49	0.88
520168	100413	314	6.16	89	10.67	451	2.44	860	344	2.30	1234	381	2.34	1142	5.13	53.85	4.32	0.90
520171	100188	198	3.18	155	8.38	530	2.03	2586	370	1.31	3377	421	1.56	3073	5.34	37.16	10.37	0.91
520178	100262	398	5.46	135	10.90	444	2.32	1334	362	2.30	1472	390	2.30	1444	5.31	58.83	5.48	0.90
520193	100270	216	1.17	221	13.91	325	0.99	1633	240	1.64	1502	269	1.41	1547	3.66	36.06	5.85	0.99
520222	100499	226	3.87	141	12.25	347	3.04	1123	245	1.50	1478	285	2.03	1353	4.01	51.72	5.83	1.03
520223	100472	194	4.37	143	11.89	268	2.31	1356	223	2.78	1168	239	2.61	1233	3.24	66.76	5.33	1.03
520353	100694	281	5.82	72	13.66	440	2.77	667	222	3.18	503	278	3.03	560	4.28	81.82	2.74	1.10
520366	100697	431	7.13	104	10.10	453	3.05	901	331	2.95	856	373	2.98	871	5.36	80.46	3.77	0.98
520249	100466	178	3.35	72	12.57	471	4.15	509	450	5.23	442	457	4.85	465	5.22	104.05	1.67	1.03
520335	100659	462	7.26	86	9.71	769	4.22	673	744	4.54	687	752	4.42	682	8.59	94.82	2.19	0.92
520337	100635	413	7.21	109	9.81	448	3.55	775	448	3.76	812	448	3.68	799	5.68	87.66	2.91	0.94
520010	100006	360	6.73	71	7.07	442	2.28	2073	434	3.42	1610	439	3.02	1774	4.51	58.31	5.21	0.93
520070	100081	180	5.04	143	11.40	216	2.56	1332	187	2.84	1251	197	2.74	1273	2.28	59.54	4.03	0.98
520113	100047	242	4.13	135	11.70	303	2.01	2202	259	1.83	2192	274	1.89	2135	2.81	36.49	6.35	0.91
520224	100524	173	2.21	223	13.19	245	2.22	1974	222	1.42	2164	247	1.70	2097	2.54	32.82	6.64	1.00
520234	100477	135	0.09	271	12.74	315	3.63	483	214	3.85	442	249	3.77	456	2.89	81.93	1.62	1.01
520332	100637	258	2.38	187	13.51	428	2.10	1061	269	1.66	1342	324	1.81	1243	4.11	43.11	4.55	0.94
520109	100416	85	0.32	119	13.64	353	2.05	939	209	1.83	974	259	1.90	961	2.35	40.75	3.04	0.90
520147	100490	304	4.99	101	11.11	405	2.15	1122	367	2.07	1345	411	2.00	1266	5.21	47.64	4.30	0.99
520212	100519	145	0.53	287	13.35	345	2.72	140[illegible]	215	1.66	1769	260	1.64	1642	3.23	33.06	6.49	1.01

DENVER — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT NUCF
520336	100633	418	3.94	66	11.84	506	4.51	634	399	4.69	676	467	4.62	661	5.33	93.11	2.00	0.86
520354	100676	105	1.30	105	11.18	221	1.75	368	108	1.65	350	147	1.69	356	1.86	40.01	1.71	1.24
520220	100562	119	2.01	211	13.64	281	1.93	1030	178	2.16	1008	207	2.07	1036	2.81	52.94	4.36	1.00
520268	100543	110	1.36	233	13.91	203	1.31	994	151	1.42	1135	169	1.31	1085	2.30	33.50	4.54	1.00
520269	100497	109	1.47	275	13.65	173	2.03	624	124	1.84	778	141	1.90	724	1.92	46.59	3.12	1.03
520291	100573	159	2.10	210	13.31	249	1.26	1518	182	1.08	1581	205	1.14	1558	2.79	29.15	6.41	0.98
520326	100620	272	3.84	73	11.72	474	2.04	373	314	2.38	500	370	2.57	455	4.22	55.13	1.58	0.99
520356	100677	389	8.97	146	8.83	787	4.75	475	544	4.05	580	627	4.27	543	7.18	92.04	2.14	1.12
520368	100709	396	6.80	146	13.41	339	2.22	598	300	2.49	531	313	2.39	554	3.97	56.93	2.21	1.03
520209	100486	166	1.67	180	10.30	350	3.51	707	281	1.35	1328	305	2.10	1110	4.56	59.00	4.44	0.87
520225	100283	152	0.43	326	11.41	268	1.34	1168	227	1.77	1187	241	1.82	1180	3.60	51.13	4.81	0.88
520037	100005	322	2.78	133	12.64	241	2.37	1044	178	0.99	1309	198	1.47	1216	2.29	31.94	3.91	0.90
520293	100561	509	7.90	77	9.46	920	4.37	830	647	3.86	1046	742	4.24	969	7.73	82.96	3.11	1.00
520338	100644	266	2.91	191	12.88	273	3.56	741	173	2.20	888	213	2.67	836	2.48	58.02	3.07	1.03
520339	100645	243	0.96	633	14.05	243	1.72	1355	185	0.67	1613	205	1.03	1522	2.37	22.38	5.60	1.03
520373	100802	418	8.13	96	9.37	1285	9.05	124	564	8.90	156	884	8.95	144	9.21	175.13	0.43	0.92
520031	100187	63	0.13	370	10.70	221	2.25	1203	86	0.65	1506	133	1.20	1393	1.53	26.07	4.47	0.90
520063	100576	286	8.68	53	9.18	475	4.55	846	327	3.28	1051	378	3.72	978	3.73	72.78	3.07	0.98
520069	100022	123	2.70	121	12.89	283	2.56	636	147	1.34	783	174	1.76	731	2.02	34.43	2.06	0.88
520073	100018	213	7.25	95	9.75	571	2.33	804	482	1.25	1006	513	1.62	935	5.86	34.75	2.98	0.91
520075	100518	210	6.38	92	10.54	333	3.47	553	258	2.32	692	284	3.11	636	2.95	60.85	2.06	1.01
520087	100078	362	5.25	92	11.18	246	3.38	752	132	2.06	874	171	2.52	831	1.97	54.76	2.65	0.90
520090	100525	173	5.96	72	10.89	247	2.03	1128	246	1.45	1178	263	1.65	1160	2.74	32.28	3.72	1.00
520105	100210	207	2.87	119	9.35	528	2.68	1117	500	1.36	1688	534	1.82	1488	5.56	35.61	4.30	0.90
520154	100108	219	6.10	110	10.45	242	2.51	867	151	1.48	976	182	1.84	937	2.30	43.83	3.18	0.87
520164	100569	2147	3.32	76	8.19	949	2.61	711	907	1.36	793	921	1.79	764	9.53	35.02	2.40	0.98
520165	100492	241	5.59	121	10.93	229	2.56	945	161	1.37	1181	184	1.78	1048	2.13	38.68	3.92	1.01
520201	100303	142	3.72	136	12.45	243	2.63	885	180	2.15	1025	202	2.31	975	2.10	45.19	2.65	0.85
520231	100607	267	8.42	87	8.71	424	4.05	739	337	3.35	883	367	3.59	832	3.82	70.24	2.67	1.00
520247	100464	207	1.92	153	13.46	210	2.56	1126	177	1.65	1412	188	1.86	1311	2.17	42.53	4.42	0.74
520274	100537	253	9.20	107	9.02	598	3.64	642	410	3.43	705	475	3.50	682	4.95	68.48	2.17	0.99
520292	100604	341	4.68	152	11.06	327	2.20	1587	237	1.10	1789	268	1.48	1718	3.10	32.16	6.08	0.97
520322	100625	174	3.70	117	12.40	175	3.16	664	112	2.21	723	134	2.54	702	1.55	55.19	2.31	0.93
520324	100619	262	3.54	95	11.89	260	3.33	687	178	1.99	827	206	2.45	777	2.38	53.24	2.76	1.03
520327	100618	235	3.81	124	11.88	102	2.09	1023	123	0.81	1271	147	1.25	1184	1.70	27.16	4.23	1.00
520343	100654	209	4.00	121	12.00	178	1.68	962	95	0.82	1117	124	1.12	1062	1.44	24.33	3.78	1.00
520027	100208	276	3.06	135	9.70	528	3.91	1141	353	1.89	1672	414	2.59	1486	4.31	50.58	4.30	0.91
520035	100223	331	3.04	161	12.55	426	2.79	1001	343	1.46	1268	372	1.92	1174	4.30	41.72	3.82	0.92
520036	100116	326	6.45	138	10.31	667	4.25	811	490	2.85	954	551	3.33	903	5.73	65.03	2.53	0.88
520078	100043	573	7.02	87	9.57	817	4.90	704	560	3.26	995	636	3.83	893	7.36	83.23	2.85	0.90
520081	100033	548	8.37	78	8.84	414	2.96	1083	307	2.35	1262	420	2.56	1139	4.86	55.63	3.84	0.90
520134	100102	507	8.95	98	8.84	698	4.80	762	454	3.41	1078	537	3.87	967	6.24	84.52	3.03	0.88
520143	100179	632	7.53	69	8.28	739	4.14	1126	708	2.86	1566	733	3.30	1412	8.55	71.71	4.50	0.89
520197	100454	410	5.11	175	10.99	446	3.70	1192	322	1.96	1592	365	2.56	1452	4.22	55.63	5.14	0.99
520199	100230	357	1.11	136	12.74	596	3.73	985	357	1.59	1420	440	2.33	1267	4.58	45.58	3.72	0.92
520219	100480	437	7.59	102	9.80	459	3.40	675	345	2.32	847	386	3.08	786	4.44	66.93	2.80	1.01
520242	100559	322	4.30	106	11.84	395	3.20	901	270	1.76	1073	313	2.26	1012	3.62	49.11	3.38	0.94
520284	100702	1758	10.24	122	7.92	1174	4.51	597	969	3.40	895	1040	3.72	790	10.83	72.78	2.45	0.97
520294	100578	341	6.41	140	10.28	686	4.60	905	330	2.17	1341	454	2.95	1189	5.25	64.11	4.42	1.04
520295	100568	324	5.78	128	10.78	295	2.42	1024	248	2.04	1237	264	2.17	1162	3.05	47.15	4.06	0.98

DENVER — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT NOCF
520344	100653	405	6.01	99	10.50	455	4.30	930	423	2.04	1251	369	2.48	1138	4.27	53.89	4.06	1.00
520346	100657	165	1.46	50	9.71	640	4.72	845	465	2.64	1114	526	3.36	1019	6.01	72.08	3.39	0.95
520350	100669	253	2.04	87	12.34	405	3.85	724	304	1.63	1110	339	2.40	974	3.53	46.96	2.79	0.96
520007	100235	293	5.01	120	9.85	326	2.02	1158	259	1.07	1620	282	1.40	1458	3.84	35.81	5.49	0.90
520012	100125	222	2.28	248	12.75	431	4.19	1045	302	1.74	1545	364	2.59	1387	4.95	66.25	5.16	0.89
520013	100066	283	4.75	144	10.77	374	4.37	823	258	2.99	923	298	3.47	887	4.06	88.76	3.28	0.88
520033	100498	358	7.58	112	9.58	434	2.92	972	356	2.85	1102	383	2.87	1056	5.21	73.41	4.55	1.03
520056	100281	370	8.03	105	9.25	422	4.04	980	353	3.40	1141	377	3.62	1087	5.13	92.53	3.34	0.86
520072	100103	331	3.89	200	11.84	473	4.64	880	358	2.47	1290	398	3.22	1146	5.42	82.36	4.20	0.87
520089	100237	348	5.77	173	10.62	401	2.62	1416	342	1.58	1861	362	1.94	1705	4.59	46.21	6.05	0.91
520131	100555	301	4.01	147	11.33	392	3.68	951	383	2.61	1089	386	2.98	1040	5.25	76.22	3.96	0.91
520145	100111	319	4.81	110	11.81	467	2.04	1086	434	1.09	1421	445	1.42	1303	6.06	36.31	4.82	0.88
520172	100335	253	3.65	223	10.68	382	2.79	1243	301	1.81	1636	323	2.15	1497	4.48	54.99	5.53	0.98
520192	100249	541	5.53	80	10.35	731	4.72	391	583	4.40	374	645	4.51	379	6.72	88.24	1.09	0.90
520200	100464	197	3.15	86	11.89	444	1.84	1044	364	1.06	1137	392	1.31	1104	4.81	44.01	3.76	0.90
520208	100290	465	10.53	63	9.03	496	4.42	726	510	5.22	526	505	4.74	536	6.88	126.36	2.18	0.88
520217	100411	259	6.04	131	10.30	381	4.02	667	250	3.45	797	295	3.64	751	4.01	93.11	2.91	0.93
520261	100593	172	2.72	150	12.75	483	3.67	603	331	2.93	760	423	3.18	707	5.17	73.27	2.81	1.06
520349	100704	182	4.74	123	11.91	388	1.64	1068	288	1.65	1094	319	1.64	1084	3.64	35.18	3.85	1.01
520006	100010	556	6.83	82	8.87	637	4.27	757	494	3.25	1004	565	3.60	917	7.16	85.75	3.16	0.88
520029	100177	246	1.85	134	9.75	496	4.44	1161	365	2.28	1530	410	3.03	1419	5.20	72.18	5.03	0.89
520030	100176	411	5.78	149	10.16	441	3.15	1233	352	2.36	1362	383	2.63	1319	4.85	62.64	4.56	0.89
520034	100266	338	5.83	77	10.33	579	3.50	832	468	2.74	994	506	3.00	937	6.42	71.47	3.27	0.90
520060	100512	130	0.11	222	13.59	303	1.47	1279	276	1.00	1476	316	1.16	1406	4.01	27.63	5.57	1.02
520065	100071	282	2.82	168	12.43	545	2.91	1242	469	2.06	1582	495	2.35	1480	6.74	60.10	5.44	0.88
520077	100055	262	2.55	149	12.38	370	3.32	734	243	3.10	891	319	3.39	857	4.34	86.46	3.24	0.90
520079	100117	506	8.03	110	8.78	730	4.25	923	531	3.17	1415	600	3.54	1267	6.96	76.93	3.29	0.86
520102	100058	413	6.23	104	10.32	459	3.62	826	349	2.89	950	387	3.14	906	5.27	80.31	3.42	0.90
520108	100137	245	4.58	125	11.14	340	3.12	878	242	1.73	1148	276	2.21	1053	3.50	52.64	3.61	0.88
520111	100062	227	1.65	228	13.91	420	5.21	411	291	3.78	526	336	4.28	495	4.26	101.96	1.66	0.88
520122	100060	308	4.35	150	11.78	331	4.06	877	312	2.96	1048	339	3.33	994	4.61	85.17	3.71	0.89
520123	100059	471	6.78	134	9.73	656	4.47	633	713	3.07	911	693	3.55	836	9.44	90.81	3.12	0.89
520148	100153	425	4.71	110	8.92	570	2.71	1105	402	2.03	1154	460	2.26	1138	5.83	53.83	4.00	0.90
520179	100219	307	3.72	167	9.08	612	5.66	745	423	3.49	1257	493	4.24	1077	6.71	109.45	4.05	0.90
520202	100489	338	6.73	135	9.97	472	3.38	936	342	2.80	1210	387	3.21	1114	5.27	82.11	4.05	0.87
520205	100486	245	3.14	139	11.76	385	3.23	744	292	2.03	929	307	2.46	880	4.18	62.41	3.12	0.87
520244	100515	265	6.30	90	10.04	410	5.07	561	284	3.65	652	330	4.14	613	3.82	89.97	2.21	1.02
520290	100553	377	7.40	100	10.16	380	2.82	986	350	3.14	1022	360	3.02	1009	4.90	77.25	3.70	0.88
520296	100571	406	7.15	138	9.99	439	3.27	987	422	3.35	845	427	3.71	834	5.81	94.89	3.67	0.98
520352	100674	162	4.68	134	11.86	467	4.85	635	401	4.17	810	424	4.60	748	5.20	101.39	3.32	1.18
520093	100086	189	2.45	266	12.22	397	4.92	635	196	2.47	949	253	3.32	839	3.52	84.92	3.18	0.90
520094	100068	349	6.11	120	10.41	507	4.33	624	276	3.47	767	356	3.98	716	4.85	101.80	2.66	0.89
520115	100554	208	2.47	328	13.19	277	3.82	850	200	2.65	1117	226	3.05	1023	3.07	78.01	3.01	0.91
520187	100333	373	7.36	79	9.47	502	5.51	613	367	3.81	919	414	4.40	741	5.66	112.55	2.71	0.87
520257	100592	226	3.56	124	11.75	286	3.04	782	194	2.28	926	219	2.54	875	2.98	64.96	3.82	1.04
520271	100443	252	4.47	95	11.43	291	2.88	979	192	1.80	974	208	2.17	975	2.83	55.50	3.68	0.90
520288	100552	315	6.34	122	10.29	421	4.13	623	270	2.91	847	322	3.33	768	4.38	84.82	2.97	0.89
520306	100598	170	0.41	130	12.65	249	3.02	990	187	1.60	1034	215	2.09	1005	2.92	53.45	4.46	1.06
520316	100611	240	3.01	224	12.27	523	4.46	7	257	3.10	789	350	3.56	728	4.44	84.80	2.81	0.93
520340	100650	131	2.41	103	13.03	233	1.84	941	271	1.36	746	280	1.91	744	3.19	40.87	2.59	0.99

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COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
520151	100675	210	2.86	82	12.88	443	1.98	841	372	2.28	780	396	2.17	802	4.86	50.00	3.76	1.24
520157	100701	306	3.90	57	8.87	438	2.06	533	440	1.60	518	439	1.76	523	5.01	37.75	1.77	0.77
520039	100420	240	2.17	204	13.27	353	4.25	538	222	3.13	680	267	3.52	630	3.63	90.03	2.38	0.70
520041	100278	370	5.39	140	11.91	426	4.03	673	269	2.60	927	321	3.12	838	4.07	74.32	2.82	0.86
520047	100154	308	0.65	312	11.82	435	4.33	813	355	2.58	1098	403	3.21	998	5.11	76.46	3.50	0.90
520144	100581	250	4.46	178	11.64	338	2.41	1524	275	2.10	1681	297	2.20	1626	3.76	52.40	6.63	1.04
520152	100089	270	6.67	121	10.21	583	5.14	709	477	4.60	843	514	4.78	796	5.87	102.55	2.54	0.91
520156	100513	149	0.35	491	12.73	164	1.04	1296	152	0.63	1491	163	0.77	1422	2.06	18.34	5.63	1.01
520170	100241	489	9.95	123	8.02	505	6.00	577	396	5.08	586	434	5.40	582	5.50	128.63	2.06	0.91
520180	100282	273	2.77	257	12.66	288	2.97	842	217	1.80	1089	241	2.20	1002	3.05	52.40	3.38	0.86
520230	100575	625	10.73	59	7.41	605	4.58	717	470	3.80	989	548	4.07	893	6.95	96.95	3.41	0.98
520286	100565	217	1.42	334	13.61	271	2.74	860	188	1.49	1088	217	1.72	1008	2.75	45.73	3.35	1.00
520155	100567	302	5.15	127	11.07	350	2.84	1050	277	2.05	1174	302	2.32	1130	4.11	59.14	4.65	0.98
520163	100541	171	0.12	775	13.37	314	1.00	2277	306	0.64	2542	308	0.76	2481	4.19	19.43	10.39	1.00
520213	100301	232	2.14	178	13.06	197	2.62	869	210	1.30	1133	205	1.83	1046	2.79	46.91	3.91	0.84
520236	100560	215	2.19	312	13.07	311	1.97	1237	233	0.90	1743	260	1.27	1566	3.54	32.34	6.60	1.01
520277	100517	140	2.57	237	13.10	256	1.99	1223	192	1.39	1474	214	1.59	1388	2.91	40.66	5.89	1.01
520282	100520	229	1.46	346	13.40	297	1.80	1449	264	1.42	1662	275	1.55	1587	3.74	39.64	6.73	1.01
520055	100011	151	4.34	119	11.67	258	2.33	517	177	1.51	830	205	1.79	720	2.34	38.40	2.27	0.90
520136	100162	219	2.10	180	9.03	412	4.43	460	276	2.49	669	323	3.16	595	4.03	75.27	2.08	0.90
520143	100494	156	0.40	133	13.35	268	2.67	904	204	1.40	1260	226	1.85	1135	3.07	47.32	4.72	0.99
520153	100097	137	5.52	117	10.48	263	1.68	880	231	1.64	1110	242	1.65	1023	2.76	35.40	3.27	0.91
520182	100539	90	0.08	306	11.92	157	1.30	822	129	1.88	875	138	1.85	856	1.87	47.32	3.57	1.00
520228	100608	2446	1.95	55	8.13	954	3.44	367	1023	2.32	417	998	2.71	399	11.40	58.13	1.40	1.00
520298	100582	364	3.88	84	11.48	516	6.00	331	406	4.72	405	444	5.16	373	6.04	131.99	1.65	1.04
520137	100120	227	4.78	116	10.41	223	2.00	942	171	1.14	1201	189	1.44	1110	2.71	38.47	4.43	0.90
520138	100554	221	3.93	112	11.69	322	3.02	1084	300	2.94	1052	307	2.96	1063	4.41	73.72	4.40	0.94
520158	100160	597	8.45	113	9.73	440	3.99	861	335	2.75	1102	417	3.14	1016	5.99	89.86	4.32	0.91
520163	100175	127	0.09	240	9.69	292	2.00	1108	210	1.03	1603	235	1.36	1429	3.20	34.78	5.39	0.90
520064	100014	244	3.75	116	11.97	347	4.12	395	234	3.33	491	273	3.60	457	3.46	85.75	1.65	0.93
520133	100127	295	2.42	265	12.51	412	3.12	890	325	3.08	914	355	3.09	905	4.50	73.60	3.13	0.89
520196	100677	156	0.47	135	13.86	329	5.31	311	233	3.75	459	266	4.23	407	3.37	102.19	1.06	1.24
520275	100502	365	7.64	74	9.27	481	4.91	645	358	4.03	766	401	4.37	723	5.08	104.10	2.90	1.03
520333	100664	272	3.43	111	12.32	389	3.02	770	268	2.21	765	310	2.48	766	3.93	68.60	2.71	0.91
520341	100663	263	1.15	237	13.54	364	4.19	447	269	3.75	607	302	3.90	554	3.83	92.90	2.01	0.92
520347	100667	222	3.53	140	12.47	315	3.09	526	209	2.45	535	246	2.67	520	3.12	63.60	2.21	1.00
520348	100665	270	5.15	97	11.13	325	3.90	545	246	3.65	500	273	3.79	515	3.46	88.13	1.82	0.91
520370	100775	233	2.33	124	9.11	325	3.40	553	264	2.80	581	285	3.01	571	3.61	71.70	2.10	0.94
520054	100016	237	3.11	121	11.97	321	3.43	583	187	2.43	642	233	2.81	621	3.35	75.87	2.40	0.87
520092	100106	189	3.71	113	11.56	195	1.81	881	145	2.04	934	158	1.95	915	2.27	52.65	3.52	0.87
520130	100096	165	3.63	106	11.52	209	3.09	540	91	2.79	647	131	2.89	627	1.88	78.03	2.44	0.88
520237	100318	166	3.41	156	12.29	146	2.44	864	141	2.67	742	149	2.58	777	2.14	63.66	2.32	0.85
520342	100651	158	1.33	113	13.75	206	1.38	1249	154	1.44	1179	172	1.41	1203	2.47	36.07	5.20	0.98
520369	100706	244	7.22	121	11.08	248	2.03	782	225	1.55	865	233	1.72	821	3.45	48.32	3.77	1.04
520371	100773	236	3.54	76	12.21	251	2.46	803	197	2.15	815	215	2.25	810	3.09	60.75	3.27	0.91
520096	100302	293	5.23	179	11.09	340	2.69	988	302	3.55	746	329	3.24	834	4.17	77.18	2.75	0.85
520246	100421	228	3.29	118	12.59	360	4.16	450	208	3.43	433	300	3.68	477	3.81	87.67	1.68	0.91
520038	100020	183	4.92	92	11.69	257	3.42	711	169	2.71	836	199	2.95	772	2.86	79.65	2.99	0.88
520059	100199	176	2.96	128	9.32	318	3.17	1096	199	2.83	1106	240	2.95	1102	3.45	79.66	4.37	0.90
520103	100178	235	4.01	114	8.31	395	3.91	1220	240	2.99	1301	294	3.24	1402	4.22	87.48	5.56	0.99

DENVER — 1970 VEHICLES — COLD START TEST DATA

		CYCLE 7 IDLE				CYCLES 1-4			CYCLES 6-7			COMPOSITE			MASS EQUIVALENT			
CAR NO	RUN NO	HC	CO	NO	CO2	HC	CO	NO	HC	CO	NO	HC	CO	NO	HC	CO	NOXC	HUCF
520135	100583	146	2.42	132	12.47	256	4.19	745	185	2.47	860	213	3.07	832	3.06	82.89	4.00	1.09
520025	100163	233	1.74	161	13.78	343	2.68	1034	269	1.51	1434	294	1.91	1315	4.23	51.58	5.25	0.90
520028	100019	452	10.21	55	8.25	455	4.67	926	428	3.55	1255	437	3.94	1133	6.28	106.39	4.47	0.89
520106	100265	216	1.97	191	13.19	336	4.51	691	247	3.91	705	278	4.11	668	3.97	110.98	2.63	0.89
520142	100085	152	1.25	216	13.92	226	5.33	416	174	3.77	545	192	4.31	499	2.43	102.67	1.77	0.91
520280	100548	296	6.85	113	10.27	259	2.35	1228	210	1.81	1543	227	1.99	1432	3.26	53.73	5.60	0.88
520023	100145	302	8.89	101	8.47	504	7.44	282	366	7.37	346	445	7.39	323	5.64	176.04	1.12	0.90
520024	100110	434	9.74	77	8.59	415	4.27	926	419	4.45	843	417	4.36	872	5.27	104.34	3.00	0.89
520159	100523	224	3.23	174	12.38	270	3.15	906	202	1.91	1206	225	2.34	1101	2.65	55.73	4.30	1.00
520279	100529	230	2.66	81	12.65	403	2.55	868	281	1.80	1068	323	2.06	998	4.03	49.06	3.77	0.97
520334	100631	375	8.42	63	9.20	735	6.24	652	365	3.92	1011	494	4.73	885	7.11	127.73	3.44	0.88
520358	100695	336	6.15	107	10.63	494	5.23	477	255	3.37	609	338	4.02	562	4.28	95.76	2.18	1.00
520359	100698	309	3.45	123	12.25	349	3.10	604	222	1.86	714	266	2.29	676	3.37	54.55	2.58	0.98
520364	100705	364	5.18	104	11.24	500	5.67	539	305	2.83	922	373	3.82	787	4.73	91.00	3.20	1.04
520026	100542	194	4.27	63	11.86	193	2.45	942	138	1.41	1004	157	1.77	982	2.25	47.79	4.34	1.00
520052	100012	297	4.74	122	11.29	314	5.43	552	217	3.03	872	250	3.86	760	3.59	104.23	2.39	0.89
520184	100248	287	3.81	134	12.09	349	3.17	1304	271	2.45	1436	298	2.70	1389	4.28	72.90	5.57	0.90
520194	100473	175	2.79	131	12.52	198	3.48	786	173	2.76	846	178	3.01	825	2.56	81.28	3.75	1.03
520195	100531	187	2.47	148	13.19	215	3.82	769	158	2.11	1018	177	2.70	930	2.54	72.90	3.38	0.97
520278	100522	217	3.69	123	11.91	312	5.65	565	233	3.75	761	260	4.41	692	3.73	119.08	3.06	1.00
520281	100516	163	1.53	103	13.01	192	3.81	492	171	2.26	698	178	2.80	629	2.56	75.60	2.91	1.01
520283	100556	210	2.73	199	12.57	271	4.47	701	196	2.90	901	222	3.44	830	3.19	92.88	3.34	0.91
520287	100550	161	0.91	248	13.84	242	3.84	593	169	2.27	722	194	2.81	676	2.79	75.87	2.62	0.88
520297	100574	178	2.38	143	13.00	231	4.09	720	183	2.15	1088	199	2.82	953	2.86	76.15	4.16	0.98
520009	100001	295	5.41	133	10.76	205	2.03	979	195	2.18	1010	198	2.12	999	2.96	59.30	4.06	0.89
520009	100002	159	0.44	308	13.52	283	4.78	572	247	4.66	671	259	4.70	636	3.87	132.05	2.51	0.86
520115	100046	175	1.55	197	13.21	256	4.61	485	205	2.85	847	222	3.46	720	3.32	97.21	2.97	0.90
520117	100052	199	5.33	137	11.12	232	6.18	393	186	3.80	723	223	4.63	607	3.33	130.08	2.51	0.90
520119	100054	254	5.93	142	10.65	316	4.75	725	238	3.71	883	265	4.07	827	3.96	114.34	3.43	0.90
520120	100051	170	2.41	146	12.97	278	7.58	270	179	3.72	644	213	5.07	515	3.18	142.44	2.14	0.91
520121	100053	251	4.96	122	11.27	346	6.91	333	259	5.05	604	289	5.70	503	4.32	160.14	2.13	0.91
520239	100316	271	7.45	94	9.56	282	3.60	1312	287	4.35	978	285	4.08	1033	4.09	110.17	4.08	0.84
520050	100013	252	1.54	133	12.88	514	2.57	1216	289	1.12	1416	367	1.62	1346	2.91	24.13	2.95	0.90
520080	100197	282	3.29	102	9.22	660	3.30	1457	381	1.94	2319	457	2.41	2192	4.02	39.89	5.34	0.90
520215	100483	173	0.96	125	14.10	279	3.77	1232	170	2.81	1279	209	3.14	1262	1.83	51.98	2.37	0.87
520011	100007	245	7.19	94	9.40	485	3.41	1519	432	3.18	1335	450	3.26	1438	3.25	44.27	2.90	0.90
520040	100169	207	4.41	138	9.21	713	3.90	2247	670	2.90	2472	685	3.25	2393	4.95	44.13	4.85	0.91
520042	100189	140	3.78	110	8.70	665	2.85	1936	598	2.55	2276	628	2.65	2178	4.53	35.85	4.39	0.91
520043	100170	235	4.23	137	8.38	438	2.45	2177	460	2.96	2106	473	2.78	2130	3.79	41.84	4.78	0.91
520045	100024	230	5.48	106	10.60	478	2.90	1916	351	2.70	1735	395	2.80	1837	2.85	38.02	3.53	0.86
520045	100426	277	7.90	138	9.46	621	4.85	1521	593	3.95	1607	602	4.26	1576	4.35	57.85	3.15	0.90
520047	100063	278	6.38	103	10.14	521	3.63	1557	401	3.41	1335	442	3.48	1412	3.19	47.26	2.78	0.88
520048	100147	168	4.20	120	11.27	515	2.80	2163	385	2.61	1962	430	2.67	2032	3.11	36.26	4.07	0.90
520049	100205	114	3.34	123	9.19	336	2.17	2717	242	2.03	2855	276	2.07	2806	2.55	35.07	7.21	0.90
520053	100023	173	5.78	105	10.52	443	2.58	1713	378	2.66	1460	400	2.63	1550	2.89	35.71	3.04	0.88
520062	100132	226	5.43	153	10.14	627	3.45	1575	558	2.90	1756	582	3.09	1692	4.21	41.76	3.30	0.98
520079	100028	138	3.95	138	11.89	445	1.94	2593	286	1.77	2583	338	1.78	2588	3.12	30.93	6.60	0.93
520084	100279	174	5.74	155	10.79	287	2.57	2200	234	2.46	2390	255	2.46	2326	1.84	33.41	4.48	0.86
520088	100039	501	3.24	131	12.04	1065	1.85	1431	479	1.66	2284	683	1.70	2160	6.31	29.50	5.47	0.89
520191	100259	213	6.15	138	10.67	416	3.81	1876	364	3.35	174	382	3.53	1726	3.06	53.12	4.00	0.90

DENVER — 1970 VEHICLES — COLD START TEST DATA

CAR NO	RUN NO	-----CYCLE 7 IDLE-----				---CYCLES 1-4---			---CYCLES 6-7---			---COMPOSITE---			-----MASS EQUIVALENT---			
		HC	CO	NO	CO2	HC	CO	NO	HC	CO	NO	HC	CO	NO	HC	CO	NOXC	HUCF
520319	100617	256	9.40	76	8.82	324	3.63	1642	269	3.55	1500	288	3.57	1549	2.30	53.73	3.47	0.71
520330	100627	239	6.31	116	10.58	368	3.32	1718	326	3.38	1545	340	3.35	1605	2.72	50.41	3.90	0.98

TABLE B-6

Washington D.C.

WASHINGTON D.C.

1970 VEHICLES

COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT SOXC	MASS EQUIVALENT NOCR
620033	000074	152	2.18	154	13.14	155	0.77	1624	127	0.50	1913	136	0.59	1811	1.39	11.38	5.60	0.98
620034	000210	137	3.34	118	11.06	367	1.65	1282	285	1.12	1601	313	1.30	1499	2.83	22.59	4.16	0.98
620215	000046	103	0.03	118	11.90	175	0.25	1260	171	0.20	1493	172	0.22	1372	1.76	4.25	4.55	1.00
620233	000100	71	0.13	117	13.18	213	0.31	1661	253	0.20	1886	241	0.24	1835	2.23	4.16	5.16	1.00
620240	000132	223	3.84	124	11.89	2 0	1.71	1479	226	2.07	1487	234	1.94	1484	2.40	37.45	4.37	1.06
620244	000137	182	5.67	96	10.58	348	2.79	641	229	2.34	773	270	2.49	726	2.43	43.28	3.14	1.04
620249	000056	142	2.93	106	12.81	329	1.26	1625	271	1.03	1765	291	1.11	1715	2.63	19.29	4.83	1.00
620261	000193	288	5.36	133	10.18	336	2.85	1710	230	2.21	1977	267	2.43	1883	2.74	46.91	5.85	0.98
620264	000134	234	1.93	143	13.33	276	1.24	1724	225	0.84	1928	242	0.98	1856	2.48	18.91	6.21	1.06
620288	000257	394	11.06	77	6.25	535	4.21	1194	583	4.61	1059	566	4.46	1106	5.82	86.12	4.10	1.17
620291	000099	70	0.17	146	13.38	209	0.57	1453	193	0.34	1801	198	0.42	1691	1.83	7.23	4.81	1.00
620292	000155	193	3.01	141	12.60	244	1.18	1707	180	0.73	1930	202	0.88	1830	2.07	16.98	5.73	0.97
620368	000188	135	1.24	117	13.55	99	1.00	887	73	0.64	1036	82	0.76	983	0.94	16.51	1.53	1.00
620035	000204	97	0.13	161	11.85	263	1.14	836	220	0.76	890	235	0.83	873	2.41	17.18	2.74	1.00
620223	000174	65	0.20	143	13.70	345	0.80	1441	363	0.33	1611	347	0.49	1567	3.21	8.51	4.31	1.09
620150	000136	75	0.41	140	13.56	344	1.84	846	287	1.41	971	306	1.56	927	2.83	27.11	5.07	1.16
620366	000172	152	0.14	142	13.30	364	0.67	1603	331	0.37	1178	342	0.47	1115	3.51	3.07	5.85	1.09
620023	000003	87	1.17	180	13.58	187	1.22	968	137	0.52	1059	156	0.76	1013	1.95	18.10	3.96	0.93
620204	000059	193	2.81	114	12.42	196	1.33	553	155	0.84	681	163	1.01	634	1.73	19.50	1.31	0.95
620220	000263	162	0.99	165	13.13	250	0.92	1055	223	0.59	1317	232	0.64	1225	2.94	15.24	5.08	1.06
620223	000127	244	2.48	111	12.93	242	1.19	770	216	0.73	905	225	0.83	857	2.85	21.10	5.54	1.06
620349	000274	127	0.27	174	13.11	105	0.81	629	144	0.23	830	151	0.43	756	1.55	8.29	2.55	1.07
620370	000206	91	0.16	250	12.48	149	0.60	1176	158	0.27	1281	158	0.38	1242	2.13	9.05	4.81	0.99
620362	000134	76	0.12	118	12.01	291	0.87	1396	246	0.20	1558	261	0.43	1501	3.31	10.23	5.79	0.99
620371	000184	90	0.37	202	12.67	186	0.74	1801	152	0.32	2158	163	0.46	2033	2.06	10.35	8.02	1.01
620036	000197	229	5.68	110	10.92	393	2.65	1353	340	2.47	1695	358	2.53	1575	4.16	54.98	5.61	1.00
620192	000199	122	0.10	203	11.38	293	0.50	1511	279	0.24	1677	283	0.33	1568	3.27	7.16	6.14	0.99
620373	000280	80	0.10	211	13.05	158	0.33	2109	149	0.28	2446	146	0.28	2424	1.85	6.66	9.06	1.00
620376	000237	105	1.33	131	11.29	137	1.41	1042	163	0.82	1274	174	1.02	1192	2.20	24.29	4.68	1.00
620417	000202	133	0.90	162	12.26	293	1.68	1237	251	0.99	1527	266	1.17	1433	3.37	27.86	5.86	1.05
620043	000262	253	6.57	105	9.35	223	1.95	2118	198	1.82	2074	206	1.86	2093	2.11	35.91	6.37	1.05
620250	000035	77	0.33	218	13.42	332	1.22	2122	252	0.44	2503	249	0.71	2363	2.53	12.33	6.02	0.93
620286	000201	250	4.74	166	10.21	347	2.90	1838	236	1.99	2468	276	2.27	2247	2.84	43.83	7.46	1.04
620431	000333	94	0.20	107	12.78	377	2.50	1231	292	1.28	1555	321	1.70	1461	2.97	23.54	3.94	0.95
620022	000010	266	3.90	150	10.81	317	3.10	1648	200	1.34	2057	243	1.75	1713	2.77	42.37	6.37	0.93
620026	000005	135	1.80	286	12.97	217	1.73	2081	136	0.55	2180	154	0.98	2151	1.83	21.23	6.92	0.90
620023	000009	217	1.72	256	12.05	275	1.72	2215	170	0.52	2515	203	0.84	2409	2.36	20.42	8.01	0.91
620033	000104	462	2.15	271	12.72	498	2.33	1180	346	2.98	1069	395	2.98	1107	4.57	64.76	4.12	1.04
620040	000038	373	6.74	121	10.36	387	2.27	2555	280	1.64	2345	317	1.86	2838	3.66	40.42	10.05	1.00
620044	000149	191	0.46	156	13.64	238	1.11	1906	170	0.48	1894	193	0.70	1838	2.01	11.69	6.06	1.00
620045	000229	225	5.58	130	9.60	252	2.05	2630	213	1.78	2723	230	1.87	2755	2.66	40.63	10.06	1.02
620046	000196	318	8.06	109	8.95	418	2.64	2247	263	2.14	2481	317	2.31	2334	3.66	50.20	8.31	1.00
620047	000200	289	6.97	116	9.00	270	2.58	1346	251	2.87	2040	257	2.76	2007	2.97	59.98	7.29	1.02
620049	000216	203	3.17	203	11.01	270	2.31	1829	191	1.18	2331	218	1.57	2155	2.52	34.11	7.82	1.02
620050	000244	151	0.33	997	12.28	224	1.11	2222	153	0.46	2613	177	0.68	2476	2.04	14.77	9.81	1.11
620051	000231	378	9.94	85	6.93	326	3.26	1956	313	3.67	1863	317	3.52	1894	3.66	76.49	7.04	1.04
620053	000133	201	4.53	96	11.27	553	3.71	947	293	1.66	1259	387	2.37	1163	4.03	46.37	3.74	1.06
620284	000079	102	1.36	125	12.83	265	1.33	1201	189	0.86	1356	215	1.02	1301	2.24	13.35	4.21	1.01
620285	000255	132	2.66	105	11.52	241	1.45	1771	198	1.10	1752	213	1.22	1758	2.21	23.87	6.35	1.11
620287	000233	75	0.36	154	11.51	408	1.09	1233	332	0.31	1316	323	0.37	1286	3.36	18.97	4.07	0.99

WASHINGTON D.C. 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOX	MASS EQUIVALENT NMHC
620312	000228	260	7.62	97	8.57	247	2.54	1975	233	2.25	2010	251	2.35	1997	2.90	51.06	7.33	1.03
620435	000348	201	3.38	185	11.19	280	2.38	1948	197	1.43	2349	226	1.80	2208	2.61	39.11	7.43	0.74
620439	000343	268	5.44	154	10.77	340	3.81	1752	220	2.14	2302	267	2.72	2103	3.03	53.10	7.28	0.77
620441	000342	437	10.75	56	7.13	414	2.92	2158	329	2.74	2460	391	2.80	2354	4.52	60.84	8.12	0.97
620444	000341	197	4.60	102	11.19	365	2.84	1135	304	2.40	1213	325	2.55	1206	3.38	43.89	3.74	0.97
620020	000024	231	0.16	158	13.07	246	0.37	2148	286	0.23	2663	286	0.28	2482	3.31	6.09	8.78	0.99
620030	000007	166	3.49	170	12.73	305	3.08	1237	233	2.33	1276	258	2.63	1262	2.98	57.15	4.06	0.90
620037	000084	314	7.99	78	9.52	295	2.20	1163	248	2.05	1421	264	2.10	1337	3.05	45.63	4.78	1.01
620038	000082	120	0.42	151	13.51	194	0.96	1212	167	0.49	1553	176	0.65	1433	2.03	14.12	5.15	1.01
620042	000063	123	1.22	170	13.76	221	1.11	1163	148	0.44	1341	173	0.67	1278	2.00	14.55	4.55	1.00
620054	000215	177	3.97	133	10.75	184	1.05	949	158	1.08	1120	167	1.06	1077	2.27	27.11	4.62	1.02
620055	000214	211	4.84	118	10.42	196	1.19	1137	191	1.23	1441	192	1.21	1355	2.22	26.29	4.88	1.01
620056	000212	176	2.68	196	11.57	344	1.03	933	378	1.47	1066	362	1.31	1040	4.59	31.20	3.99	0.98
620058	000237	396	7.86	64	9.34	274	1.82	738	271	2.00	943	272	1.93	871	3.14	41.94	3.53	1.14
620059	000318	116	0.44	180	13.88	185	0.44	1173	134	0.28	1574	151	0.33	1433	1.74	7.16	5.58	1.11
620060	000242	154	2.41	101	11.80	259	0.74	717	162	0.70	948	195	0.71	867	2.65	18.15	3.83	1.05
620061	000239	147	1.03	120	12.49	238	0.69	1203	197	0.45	1651	211	0.53	1474	2.44	11.51	5.43	1.02
620196	000213	209	5.44	103	9.78	513	1.56	1214	450	1.27	1401	472	1.37	1335	4.91	26.75	4.33	1.01
620202	000227	186	5.09	98	10.70	150	0.98	1136	139	1.04	1530	142	1.01	1381	1.64	21.95	4.93	1.00
620222	000235	103	0.73	135	12.37	238	1.71	1207	198	1.72	1213	212	1.71	1210	2.45	37.16	4.23	1.00
620253	000101	406	5.39	111	11.12	316	1.36	1553	273	1.27	1304	286	1.30	1718	3.33	28.25	6.15	1.00
620320	000315	304	7.13	79	9.55	257	1.64	1565	219	1.41	1941	232	1.49	1803	2.68	32.38	7.05	1.09
620380	000327	207	4.34	100	11.41	216	1.26	958	205	1.82	978	208	1.62	971	2.83	41.43	3.91	0.94
620425	000314	199	1.39	117	13.38	222	1.49	1781	215	1.15	1388	217	1.26	1350	2.51	27.37	5.26	1.03
620426	000321	192	3.90	85	12.08	168	1.17	1495	156	0.79	1729	170	0.92	1667	1.96	17.99	6.05	1.03
620007	000023	1203	8.39	105	8.52	601	2.56	1347	480	2.32	1589	522	2.40	1504	7.11	61.39	6.18	0.98
620019	000004	253	6.40	90	10.69	310	2.51	1067	245	1.78	1632	267	2.03	1473	3.63	51.92	5.57	0.93
620041	000089	263	4.13	95	12.11	391	1.47	932	234	1.27	1208	288	1.33	1132	3.92	34.01	4.86	1.02
620063	000217	148	3.85	137	10.80	230	1.34	1572	193	1.44	1641	205	1.40	1616	2.79	35.81	7.73	1.14
620065	000256	245	7.18	105	10.01	498	2.89	867	195	2.31	1133	301	2.51	1039	4.10	64.20	4.33	1.11
620066	000183	230	7.25	69	9.54	301	2.49	1354	224	2.37	1429	259	2.41	1402	3.40	61.64	5.98	1.00
620067	000160	538	8.77	73	8.70	409	2.95	1475	339	2.60	1611	357	2.72	1614	4.86	69.57	6.87	0.97
620068	000219	184	5.28	78	9.59	245	2.00	1170	206	1.84	1458	213	1.89	1242	2.98	48.35	5.26	0.97
620195	000253	203	0.55	433	12.71	213	0.77	1593	180	0.44	2117	171	0.55	1933	2.60	14.06	8.73	1.08
620201	000240	289	6.64	68	9.07	331	2.39	889	262	2.71	1026	286	2.80	978	3.62	66.69	3.88	1.02
620384	000290	207	7.04	87	9.34	242	2.29	1243	197	2.25	1412	212	2.23	1352	2.88	57.04	6.69	1.19
620421	000285	269	7.54	97	8.47	261	2.33	1231	243	2.57	1573	249	2.50	1453	3.39	63.94	6.57	1.08
620071	000220	373	8.19	85	8.70	237	2.15	1715	368	3.36	1439	343	2.93	1567	4.93	79.12	6.72	0.97
620072	000248	173	3.56	130	10.45	224	1.88	857	147	1.69	758	173	1.75	792	2.48	47.25	3.82	1.03
620062	000106	288	6.59	100	9.52	262	2.33	1011	226	2.13	1191	238	2.19	1127	2.75	47.59	4.19	1.04
620070	000071	373	3.24	80	10.48	528	1.77	1023	325	1.65	1229	376	1.69	1156	5.39	43.22	4.71	0.97
620365	000163	266	5.44	89	11.05	331	3.19	1242	250	2.36	1373	274	2.65	1331	3.78	67.78	5.70	1.02
620415	000185	349	2.13	82	9.76	456	1.28	567	295	0.95	659	316	1.06	626	3.61	22.73	2.19	1.00
620021	000087	458	5.87	63	9.51	285	1.64	1558	298	2.27	1544	293	2.04	1548	4.21	55.08	7.02	1.02
620073	000080	160	3.33	86	12.07	213	1.89	1120	197	2.18	1222	202	2.07	1146	2.30	44.40	4.21	1.01
620211	000167	183	0.26	80	11.78	468	0.51	647	305	0.91	791	357	1.46	715	4.65	34.78	2.79	1.00
620300	000175	367	7.32	122	9.59	324	1.98	1625	324	1.65	1830	337	1.63	1741	3.70	29.28	5.86	1.14
620327	000057	141	3.47	211	13.73	272	2.04	1586	173	0.36	1734	223	0.56	1822	2.13	10.06	5.08	0.95
620333	000076	273	2.33	103	12.35	468	1.23	1193	412	0.74	1444	428	1.04	1358	3.69	16.87	3.81	1.05
620367	000153	124	2.41	128	12.06	342	1.49	1178	305	1.25	1482	317	1.33	1375	2.73	21.57	3.54	0.97

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COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
620434	000332	64	0.15	148	12.47	302	1.40	720	258	0.35	881	274	0.71	824	2.36	11.51	2.07	0.35
620437	000338	314	3.10	101	12.23	716	2.25	1177	471	1.04	1429	556	1.46	1340	4.80	23.68	3.45	0.97
620009	000014	146	1.14	216	12.86	233	0.64	2468	245	0.34	2464	261	0.44	2465	2.68	8.47	7.10	0.93
620080	000117	229	7.83	104	9.79	319	2.29	1706	228	1.78	1707	259	1.95	1706	2.47	35.04	5.13	1.02
620082	000156	168	3.01	182	12.35	253	1.29	1652	191	0.75	1841	212	0.83	1774	2.02	16.71	5.06	0.97
620083	000123	489	7.02	138	10.93	427	1.91	2270	360	1.55	2750	383	1.67	2582	3.66	30.01	7.67	1.01
620084	000157	184	3.71	131	12.02	245	1.10	1782	196	0.76	1740	213	0.87	1754	2.03	15.63	5.01	0.97
620085	000094	40	0.10	100	12.21	238	0.88	1535	208	0.53	1723	218	0.65	1657	1.88	10.54	4.48	1.02
620203	000095	134	1.76	114	13.26	218	0.75	1526	213	0.60	1767	214	0.65	1676	1.84	10.54	4.53	1.02
620442	000345	106	0.12	453	12.69	220	0.50	2678	174	0.16	3081	190	0.28	2933	1.81	5.03	8.18	0.94
620016	000015	182	1.54	218	12.35	300	1.77	1227	265	0.94	1624	277	1.23	1485	3.20	26.72	5.56	1.05
620018	000019	336	5.86	94	10.66	243	1.72	825	184	1.32	821	204	1.46	822	2.36	31.73	2.87	0.98
620090	000150	112	0.43	205	13.96	260	1.65	701	215	0.58	863	230	0.75	806	2.66	20.64	2.86	1.00
620091	000246	296	4.68	123	10.68	350	1.84	1111	306	1.26	1511	321	1.46	1370	3.71	31.73	5.33	1.09
620095	000329	153	0.13	193	13.56	159	0.41	849	139	0.35	828	142	0.37	835	2.22	8.04	2.78	0.94
620218	000105	233	4.32	107	11.37	447	2.36	810	338	1.79	1034	376	1.98	955	3.91	39.74	3.20	1.04
620225	000232	170	1.95	158	12.58	216	1.51	917	157	0.72	953	177	1.12	940	2.04	24.33	3.58	1.07
620231	000064	160	1.41	150	13.71	102	1.47	583	121	0.57	744	142	0.88	689	1.64	19.12	2.45	1.00
620246	000171	534	8.69	84	9.42	588	2.05	1656	437	1.87	1733	483	1.93	1706	6.20	45.97	6.66	1.00
620256	000226	161	3.50	93	11.37	326	1.93	758	242	1.31	864	271	1.52	826	3.09	32.60	2.82	0.97
620258	000183	354	8.02	111	9.81	367	1.90	1086	282	1.61	1085	311	1.71	1085	3.59	37.15	3.88	1.01
620265	000182	216	4.66	112	10.54	274	1.69	937	241	1.52	1026	256	1.57	1040	2.96	34.11	3.77	1.02
620297	000108	403	9.56	66	8.64	715	2.30	521	550	2.08	631	607	2.15	655	6.32	42.06	2.14	1.02
620363	000203	243	4.63	81	10.39	283	1.34	1022	240	1.13	990	260	1.24	1001	3.00	26.94	3.56	1.00
620392	000330	169	0.10	144	12.48	209	0.23	947	284	0.27	1070	257	0.50	1026	3.26	11.91	3.76	0.94
620393	000286	123	0.24	183	14.01	202	0.67	825	183	0.35	970	189	0.46	919	2.18	9.99	3.58	1.00
620424	000304	98	0.20	185	13.09	195	1.04	867	126	0.29	816	150	0.55	833	1.73	11.95	3.21	1.08
620017	000036	300	4.34	134	11.96	204	0.74	871	159	0.60	961	174	0.64	929	2.20	15.24	3.23	0.89
620024	000025	1556	1.81	281	10.73	323	2.69	1520	325	1.87	1504	324	2.15	1509	4.11	51.22	5.85	0.97
620025	000072	251	5.11	114	11.23	394	1.75	1564	286	1.52	1726	305	1.67	1669	3.86	39.76	6.33	0.97
620074	000039	209	2.73	133	12.67	243	0.82	1715	235	0.75	1964	237	0.77	1811	3.30	18.34	6.33	0.87
620075	000049	50	0.15	247	13.05	245	1.41	1339	158	0.27	2116	188	0.66	1844	2.38	15.72	6.45	0.99
620076	000119	85	0.15	238	13.04	258	1.60	1601	170	0.29	2145	200	0.74	1954	2.53	17.62	7.71	1.01
620077	000067	104	0.27	230	13.27	227	0.92	1702	212	0.31	2055	217	0.31	1931	2.51	6.73	6.68	0.97
620078	000081	254	4.92	123	11.47	256	1.60	924	194	1.20	112	215	1.34	1055	2.48	29.11	3.79	1.01
620079	000062	227	2.86	140	12.90	253	1.00	1158	167	0.38	1471	187	0.58	1361	2.28	12.82	4.86	1.00
620088	000083	378	6.43	111	10.41	340	1.22	752	292	1.42	828	308	1.35	801	3.90	32.15	3.15	1.01
620096	000259	278	4.91	88	11.53	348	1.17	1103	226	0.97	1123	248	1.02	1115	3.40	24.29	4.64	1.07
620097	000300	214	2.40	194	13.33	219	1.36	1149	173	0.95	1216	190	1.03	1192	2.41	25.95	5.30	1.14
620098	000205	96	0.23	217	12.40	282	1.80	885	261	0.47	1150	268	0.93	1057	3.40	22.15	4.09	0.97
620194	000269	224	0.89	200	13.40	374	0.54	1342	251	0.41	1566	299	0.45	1487	3.46	9.77	5.58	1.05
620207	000047	188	3.37	142	12.40	327	1.41	2122	230	0.66	2585	263	0.92	2422	3.33	21.91	8.55	0.90
620226	000151	160	2.20	183	13.52	300	1.36	1487	137	0.72	1914	233	1.15	1764	2.96	27.40	7.04	1.02
620236	000180	103	0.13	239	11.91	323	0.27	827	203	0.30	1671	240	1.39	1375	3.14	33.11	5.47	1.02
620242	000051	179	2.14	202	13.20	208	0.98	1428	156	0.55	1682	174	0.70	1593	2.01	15.20	5.07	0.89
620097	000266	269	5.26	88	9.19	289	2.19	1055	217	1.43	1209	242	1.64	1155	3.29	43.22	5.03	1.04
620228	000270	111	0.19	123	14.06	143	1.00	753	104	0.35	750	117	0.57	751	1.59	14.57	3.31	1.05
620234	000032	319	6.42	130	10.33	319	2.43	1526	248	1.70	2073	272	1.95	1881	3.71	43.80	7.15	0.91
620238	000195	79	0.15	252	12.02	179	0.34	748	111	0.56	940	134	1.18	872	1.82	30.17	3.61	0.93
620273	000250	264	5.96	21	10.29	282	2.41	1.84	186	1.20	113	220	1.62	522	2.79	41.43	2.34	1.08

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		-----CYCLE 7 IDLE-----				---CYCLES 1-4---			---CYCLES 6-7---			COLD START TEST DATA ---COMPOSITE----			-----MASS EQUIVALENT---			
CAR NO	RUN NO	HC	CO	NO	CO2	HC	CO	NO	HC	CO	NO	HC	CO	NO	HC	CO	NOXC	HCCF
620279	000190	165	0.16	122	12.74	264	0.81	1692	245	0.35	1877	251	0.51	1812	3.41	13.04	7.53	1.00
620308	000258	342	5.80	79	9.96	435	2.02	1465	321	1.10	1995	369	1.42	1809	4.90	36.31	8.42	1.11
620323	000033	64	0.15	199	13.82	148	1.61	1329	94	0.19	1772	112	0.58	1616	1.52	17.39	6.05	0.83
620396	000288	201	0.13	174	13.53	175	0.54	1301	222	0.35	1541	205	0.41	1456	2.79	10.48	6.66	1.03
620193	000281	109	1.57	145	13.88	163	0.62	760	132	0.52	871	142	0.55	832	1.80	13.10	3.23	1.00
620239	000061	268	3.07	112	12.65	187	1.61	619	162	1.22	664	170	1.35	648	2.44	30.44	2.70	0.95
620266	000131	148	2.62	132	12.91	213	1.28	836	176	0.96	944	188	1.07	906	2.56	27.36	4.01	1.06
620443	000349	200	3.03	186	12.35	232	2.87	642	168	2.17	737	190	2.41	703	2.73	65.07	2.92	0.94
620086	000147	97	0.75	148	9.67	219	0.93	2050	168	0.45	2362	185	0.61	2239	1.90	11.77	6.82	0.96
620087	000170	97	0.34	236	14.15	228	0.52	2492	188	0.45	2767	202	0.47	2605	2.33	10.21	10.15	1.09
620089	000192	240	6.79	120	9.75	248	1.67	1895	218	1.56	2001	228	1.59	1963	2.34	30.69	6.10	0.98
620235	000052	110	1.57	156	13.58	223	0.76	1071	182	0.63	1228	196	0.67	1173	2.04	13.10	3.36	0.89
620420	000272	65	0.14	383	13.35	132	0.29	1373	140	0.33	1933	137	0.35	1736	1.40	6.75	5.84	1.06
620245	000044	3665	7.58	113	6.59	2340	3.43	329	2404	3.76	329	2399	3.66	328	24.95	71.61	0.93	0.89
620334	000166	252	2.45	160	13.35	138	0.31	838	152	0.61	980	164	0.67	930	2.09	15.95	3.72	1.03
620414	000181	583	0.20	118	10.39	602	0.37	1073	547	0.23	1275	566	0.28	1206	6.46	5.39	4.32	1.02
620333	000097	282	6.83	81	9.78	410	2.22	926	354	1.58	1225	373	1.80	1120	4.26	38.61	3.95	1.00
620101	000241	154	1.48	129	12.70	269	1.35	1742	205	0.66	1476	227	0.90	1334	3.09	23.01	6.07	1.04
620200	000164	148	3.10	134	12.95	236	2.55	1177	171	0.79	1573	214	1.49	1434	2.91	35.81	6.14	1.02
620001	000016	70	0.23	277	10.60	100	0.33	823	107	0.30	965	104	0.31	917	1.55	8.70	4.43	1.05
620398	000283	120	0.37	267	11.88	113	2.58	417	83	2.84	408	97	2.74	411	1.45	76.96	1.35	1.04
620267	000249	348	7.65	119	8.65	176	1.32	717	155	1.49	769	162	1.43	750	1.87	31.07	2.87	1.08
620272	000142	88	0.18	303	13.50	189	1.41	615	44	0.23	618	94	0.64	616	1.08	13.90	2.10	0.96
620282	000161	245	4.13	133	12.11	186	2.42	742	128	1.09	953	148	1.55	873	1.71	33.68	3.03	0.97
620305	000238	319	2.95	93	11.52	266	0.95	1217	245	0.53	1313	252	0.71	1273	2.91	15.42	4.58	1.00
620032	000013	267	6.22	95	9.92	143	1.73	750	103	1.20	666	116	1.38	685	1.34	23.99	2.34	0.95
620110	000120	139	3.52	106	12.43	180	1.43	671	160	1.29	832	167	1.33	775	1.74	26.02	2.50	1.01
620111	000103	246	6.08	81	10.88	379	2.01	785	344	1.64	1094	356	1.76	985	3.71	34.43	3.30	1.04
620112	000130	388	9.83	71	8.43	301	3.13	989	240	2.41	1234	261	2.66	1148	3.02	57.30	4.32	1.06
620268	000316	313	5.29	101	11.43	274	1.41	1313	243	1.30	1446	253	1.33	1425	2.63	26.02	5.00	1.09
620269	000165	59	0.35	120	14.37	237	1.28	773	167	0.37	915	173	0.68	865	2.01	13.30	2.84	1.03
620280	000050	179	5.85	145	11.23	288	1.28	904	305	1.41	1131	299	1.36	1051	3.11	26.60	3.01	0.89
620281	000239	228	5.63	93	10.11	123	1.23	930	107	0.95	944	113	1.04	939	1.30	22.53	3.50	1.05
620293	000225	343	7.65	103	8.87	179	1.15	699	164	1.29	691	169	1.24	693	1.95	26.34	2.40	0.97
620304	000247	196	6.36	89	9.70	113	1.36	1071	113	1.13	1271	112	1.24	1200	1.23	26.34	4.67	1.09
620307	000049	335	7.53	125	9.54	217	1.60	1466	137	1.24	1701	233	1.36	1618	2.34	29.55	5.16	0.89
620309	000146	291	7.13	134	10.11	2542	1.87	766	346	0.97	761	1120	1.20	762	13.05	27.81	2.61	0.96
620316	000208	315	6.50	111	9.70	103	1.45	1193	154	1.23	1245	166	1.34	1226	1.32	27.11	4.21	0.96
620347	000243	177	2.42	191	12.00	239	0.60	723	279	0.58	817	235	0.61	784	2.97	11.93	2.68	1.07
620003	000006	271	2.37	174	12.75	294	1.66	1214	247	0.89	1350	263	1.15	1302	3.04	24.98	4.18	0.90
620004	000001	295	2.09	233	13.52	457	1.97	1128	247	0.77	1433	320	1.18	1358	3.70	25.63	4.44	0.96
620105	000124	484	8.04	101	9.47	340	2.05	1152	304	1.82	1240	316	1.90	1213	3.65	41.28	4.35	1.01
620108	000073	350	4.07	126	11.84	258	1.27	917	236	1.14	1155	243	1.18	1072	2.81	25.63	3.73	0.98
620117	000254	385	5.94	79	9.78	411	1.89	1356	324	1.55	1454	354	1.66	1417	4.09	36.07	5.44	1.08
620118	000211	418	7.11	92	9.17	352	2.06	946	329	2.02	872	337	2.03	887	3.90	44.11	3.13	0.98
620119	000251	316	4.11	110	11.17	333	3.22	860	268	1.46	1242	311	2.07	1108	3.59	44.98	4.24	1.08
620120	000236	327	5.20	112	10.25	374	1.51	795	288	1.23	667	318	1.32	735	3.68	29.69	2.48	0.99
620198	000128	513	4.62	91	11.31	480	2.61	841	404	1.35	1109	430	1.79	1015	4.48	35.02	6.44	1.06
620210	000038	128	0.45	91	13.52	284	0.46	1502	281	0.36	1439	282	0.39	1500	2.93	7.62	4.30	0.99
620230	000065	279	3.22	125	12.53	276	1.97	1049	234	1.17	1208	248	1.44	1152	2.87	31.23	4.09	1.00

WASHINGTON D.C. 1979 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	2-CYCLE IDLE HC	2-CYCLE IDLE CO	2-CYCLE IDLE NO	2-CYCLE IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT HUCF
620283	000309	244	1.88	93	12.74	280	1.02	1259	244	0.72	1408	256	0.82	1355	2.66	16.04	4.91	1.13
620303	000245	266	5.82	126	9.67	450	2.72	1045	357	1.91	1273	383	2.19	1193	4.05	42.85	4.18	1.09
620317	000221	202	0.09	262	11.68	239	0.35	1012	214	0.19	1177	222	0.24	1119	2.56	5.21	3.86	0.97
620348	000113	418	7.31	96	10.02	489	3.11	956	393	2.33	1189	430	2.60	1107	4.47	50.87	3.62	1.02
620427	000328	375	5.03	97	11.33	273	1.15	1382	279	1.31	1446	276	1.25	1423	3.20	27.17	4.76	0.94
620433	000340	233	0.80	207	13.61	276	0.65	1092	271	0.41	1137	272	0.49	1121	3.14	10.64	3.87	0.97
620006	000011	306	5.70	130	10.06	387	3.24	754	280	2.19	899	317	2.55	849	4.31	65.23	3.32	0.93
620216	000091	97	1.23	124	13.32	319	2.43	571	270	1.78	664	287	2.00	631	2.99	39.13	2.06	1.02
620306	000077	450	4.53	91	11.71	343	3.21	796	353	2.62	939	366	2.82	888	4.98	72.13	3.91	1.05
620311	000135	256	2.38	137	13.20	252	0.65	1514	226	0.40	1510	235	0.61	1511	3.20	15.59	6.58	1.04
620314	000107	193	4.20	102	11.65	642	2.87	1169	505	2.00	1408	552	2.30	1324	5.75	45.00	4.34	1.02
620329	000054	633	10.97	93	7.76	851	4.04	838	801	4.35	817	818	4.24	824	8.52	82.96	2.64	1.00
620332	000148	258	3.02	182	12.64	272	1.21	1201	193	0.86	1409	203	0.98	1336	2.76	25.06	5.58	1.00
620336	000070	291	6.05	111	10.73	325	2.15	837	261	1.06	957	289	1.02	914	2.84	51.67	3.72	0.97
620339	000085	252	2.78	142	12.03	325	0.83	1277	391	0.85	1382	367	0.84	1346	5.00	21.44	5.69	1.01
620344	000178	253	4.56	117	10.74	175	1.04	1121	108	1.23	1141	143	1.16	1133	2.49	29.66	5.55	1.17
620351	000282	159	1.56	140	13.98	147	1.38	990	124	0.75	1078	132	0.97	1047	1.73	24.80	4.47	1.02
620428	000336	226	2.19	163	12.45	221	1.12	1212	163	0.59	1312	183	0.77	1277	2.49	19.69	5.07	0.95
620429	000[illegible]	327	5.29	119	10.70	342	2.03	1501	324	1.66	1635	330	1.78	1598	4.49	45.52	6.47	0.97
620438	000339	259	4.68	124	10.44	269	1.65	1137	234	1.21	1396	246	1.36	1303	3.12	32.39	4.93	0.97
620263	000129	431	6.87	73	9.49	533	4.40	308	391	3.62	403	440	3.89	384	5.02	83.25	1.13	1.06
620010	000018	321	3.94	131	11.34	309	1.27	1251	285	1.19	1479	293	1.21	1376	3.99	30.95	5.75	0.98
620102	000053	245	4.83	152	11.76	175	1.02	1112	140	0.79	1312	152	0.87	1242	1.92	20.72	4.85	1.00
620104	000040	265	3.73	145	12.30	255	2.18	989	237	1.77	1090	243	1.91	1054	3.31	48.85	3.75	0.93
620106	000306	248	2.52	110	12.71	349	2.37	1006	350	2.28	898	349	2.31	935	4.03	50.20	3.55	1.06
620109	000058	319	5.04	99	11.10	349	1.88	994	306	1.50	1206	321	1.63	1131	4.07	38.82	4.18	0.95
620121	000186	411	5.74	100	9.77	322	1.98	1606	289	1.63	1676	300	1.73	1651	4.08	45.78	6.32	1.00
620123	000324	248	2.24	162	13.03	182	0.87	1256	166	0.69	1359	171	0.75	1322	2.32	17.18	5.63	1.02
620124	000287	193	0.91	269	14.14	234	3.90	504	188	3.40	573	204	3.57	548	2.77	91.32	2.50	1.09
620126	000294	233	3.62	111	12.49	162	1.14	880	154	0.97	1033	156	1.02	979	1.97	24.29	4.43	1.16
620128	000317	152	3.37	148	12.48	115	1.13	717	107	1.18	871	109	1.19	830	1.49	30.17	3.80	1.09
620129	000140	320	6.22	93	10.31	370	2.74	937	231	2.00	1051	262	2.25	1011	3.56	57.55	4.08	0.96
620130	000312	241	3.59	124	12.56	130	1.17	1071	180	1.11	1001	183	1.13	1025	2.11	24.55	4.06	1.11
620131	000305	331	5.68	104	10.85	342	4.42	800	233	2.44	1003	271	3.13	931	3.44	74.56	3.94	1.09
620224	000268	242	3.80	135	12.42	267	2.72	880	226	1.73	1114	240	2.11	1032	2.77	45.85	3.82	1.04
620247	000307	217	1.93	133	13.01	230	2.40	985	200	1.09	1234	231	1.54	1146	3.14	39.38	5.43	1.13
620248	000167	395	8.23	117	9.20	312	2.95	1353	294	2.53	1573	307	2.67	1498	4.18	68.29	6.64	1.06
620251	000037	86	0.14	239	13.70	244	0.39	1525	240	0.24	1593	241	0.29	1563	3.05	6.90	5.48	0.83
620254	000276	227	2.68	83	12.36	266	2.10	688	245	1.68	710	252	1.82	702	3.19	43.35	2.73	1.00
620345	000139	245	3.47	177	12.83	134	1.58	863	184	1.53	904	187	1.54	889	2.54	39.38	3.95	1.03
620419	000279	391	4.58	97	11.15	661	1.83	1342	610	1.61	1520	627	1.68	1457	7.16	36.04	5.14	1.00
620103	000055	134	0.92	258	13.87	172	1.35	995	114	0.41	1105	134	0.73	1062	1.82	18.67	4.45	1.00
620290	000169	314	6.33	89	10.21	265	1.93	1[illegible]	233	1.73	1369	244	1.82	1312	3.32	46.55	6.01	1.01
620310	000323	251	4.23	127	11.87	166	1.46	924	165	1.47	1068	166	1.46	1017	2.26	37.34	4.32	1.02
620315	000227	170	1.00	213	12.81	141	1.30	1434	167	1.08	1455	171	1.14	1447	2.32	23.15	5.28	0.99
620326	000331	130	1.56	172	12.37	179	1.82	1136	141	0.85	1277	147	1.18	1242	2.27	30.17	5.13	0.95
620335	000076	198	3.60	161	12.44	162	1.41	1168	144	1.31	1218	150	1.34	1200	2.04	34.27	5.30	1.05
620232	000141	121	1.75	125	13.15	79	0.62	844	[illegible]	0.73	983	78	0.74	604	1.06	18.92	2.43	0.96
620002	000017	148	0.71	236	12.92	140	0.57	903	136	0.41	856	137	0.46	837	1.73	10.95	3.43	1.05
620014	000027	148	1.64	235	12.76	139	0.57	910	[illegible]	0.44	1064	107	0.49	905	1.35	11.43	3.20	0.90

WASHINGTON D.C. 1970 VEHICLES COLD START TEST DATA

CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOXC	MASS EQUIVALENT NOLF
620027	000012	220	1.86	146	12.74	210	1.22	794	180	0.77	870	190	0.92	843	2.41	21.91	3.12	0.95
620132	000045	105	0.16	266	11.90	143	0.37	762	141	0.28	1395	141	0.31	1166	1.78	7.38	4.11	0.70
620133	000144	232	2.70	188	12.59	169	0.72	1010	159	0.86	1200	162	0.88	1133	2.20	22.50	4.57	0.96
620137	000347	349	3.84	115	11.58	273	0.99	822	237	0.83	943	249	0.89	900	4.15	20.75	3.31	0.94
620253	000114	252	4.97	147	11.36	152	1.35	791	133	1.16	956	143	1.22	829	1.81	27.06	3.39	1.02
620328	000086	172	2.05	252	13.36	147	1.15	634	110	0.87	722	119	0.96	691	1.50	22.86	2.72	1.01
620418	000311	348	4.46	123	11.47	135	1.09	840	171	0.85	949	173	0.93	910	2.27	22.15	3.94	1.11
620134	000092	495	4.52	136	11.51	360	1.42	1182	342	1.27	1497	348	1.32	1386	4.41	31.44	5.54	1.02
620135	000090	323	1.59	545	13.26	154	0.60	943	222	0.60	1475	198	0.69	1288	2.69	15.34	5.53	1.02
620139	000284	243	3.28	158	12.77	142	0.78	742	137	0.77	955	139	0.77	897	1.87	19.69	4.05	1.08
620219	000301	416	0.16	382	11.16	1112	0.25	964	949	0.24	1157	1006	0.24	1089	13.70	6.13	5.29	1.16
620270	000293	470	2.65	202	11.98	337	0.85	910	306	0.79	1004	316	0.81	971	4.30	20.71	4.79	1.18
620295	000043	177	1.94	201	12.92	249	1.10	1322	257	0.92	1561	254	0.98	1477	3.22	18.58	5.17	0.99
620136	000093	752	8.97	52	8.34	411	2.15	930	421	1.91	1222	417	1.97	1113	5.68	50.89	4.78	1.02
620140	000346	114	0.15	296	13.57	157	0.27	1029	154	0.25	1296	155	0.25	1202	1.96	5.95	4.43	0.94
620330	000063	462	5.81	75	10.73	398	2.23	855	314	1.69	1135	343	1.87	1036	4.67	47.83	4.22	0.97
620403	000218	198	1.87	140	12.22	229	0.61	1365	221	0.54	1702	223	0.56	1584	3.03	14.32	6.44	0.97
620013	000026	246	4.24	115	11.76	144	0.96	783	155	0.85	945	151	0.88	890	2.17	23.75	3.91	0.99
620142	000310	163	1.82	185	13.21	152	1.40	1047	147	0.92	1374	148	1.04	1259	2.12	29.15	6.19	1.11
620274	000030	98	0.44	196	13.83	96	0.50	794	92	0.53	851	93	0.51	831	1.33	13.76	3.33	0.90
620321	000273	77	0.22	173	13.72	124	0.56	533	80	0.41	573	95	0.46	558	1.36	12.42	2.66	1.08
620143	000041	273	4.47	116	11.58	348	1.87	1585	293	1.34	1726	312	1.52	1676	4.25	38.67	6.37	0.91
620144	000207	313	7.47	102	9.04	256	2.11	888	204	1.97	943	222	2.01	923	3.02	51.41	3.73	0.96
620145	000296	147	0.40	74	13.61	342	1.39	711	405	1.24	753	376	1.29	738	4.52	27.67	3.90	1.16
620146	000325	351	5.46	97	11.08	252	1.63	988	231	1.36	1069	239	1.45	1040	3.03	34.53	4.13	1.02
620147	000264	181	2.91	104	12.31	165	1.40	671	125	0.96	841	138	1.11	807	1.87	28.39	3.58	1.06
620148	000176	158	2.16	138	11.64	159	0.94	638	161	0.88	738	160	0.90	724	2.18	23.02	3.46	1.14
620149	000278	350	7.95	60	9.60	187	1.79	725	174	1.76	868	178	1.77	817	2.25	42.16	3.20	1.00
620151	000302	158	1.64	151	13.26	110	0.91	860	115	0.95	989	113	0.93	943	1.53	23.78	4.58	1.16
620318	000289	319	0.94	168	12.19	149	0.79	727	147	0.75	903	147	0.76	841	1.86	18.10	3.65	1.11
620446	000298	104	0.98	207	13.49	79	0.88	664	102	0.88	665	103	0.88	677	1.26	20.45	2.47	0.94
620154	000145	90	0.58	112	13.18	105	0.51	1036	98	0.40	1154	100	0.43	1112	1.43	11.60	4.74	0.96
620212	000171	449	5.62	48	9.03	313	2.08	963	256	2.67	552	274	2.74	855	3.99	73.99	4.13	1.03
620221	000152	145	1.56	77	12.69	114	0.41	936	116	0.49	1229	115	0.46	1147	1.65	12.42	4.32	0.97
620237	000060	94	2.20	122	13.27	58	0.48	736	53	0.43	931	54	0.48	880	0.77	12.35	3.68	0.95
620276	000292	128	2.66	83	12.92	73	0.70	775	76	0.73	874	74	0.71	839	1.06	19.16	4.37	1.18
620152	000167	203	1.62	168	13.51	239	0.92	940	220	0.85	1097	226	0.87	1042	2.86	20.72	4.44	1.09
620277	000177	126	0.59	160	13.72	137	0.56	776	132	0.36	985	133	0.43	911	1.68	10.23	4.04	1.14
620153	000299	130	1.85	71	13.21	124	1.28	945	122	0.96	1047	124	1.07	1011	1.78	28.98	5.09	1.14
620208	000115	98	2.06	113	13.16	93	1.20	635	73	0.94	665	78	1.03	654	1.12	27.81	2.95	1.02
620324	000168	435	2.87	104	12.53	219	1.75	775	182	1.05	713	196	1.23	733	2.81	34.83	3.53	1.03
620170	000291	216	3.47	120	12.41	213	2.57	363	141	0.75	1138	166	1.38	1090	2.38	37.26	5.63	1.18
620171	000118	150	1.47	163	12.89	225	1.46	1060	176	0.66	1268	173	0.94	1208	2.44	22.39	4.82	1.02
620271	000111	179	0.18	564	13.39	302	1.64	1517	263	0.26	2333	279	0.74	2020	4.01	13.98	9.46	1.03
620301	000223	270	5.18	37	10.11	225	2.07	1155	179	1.33	1467	195	1.62	1357	2.80	43.75	5.87	0.98
620322	000031	238	2.94	163	12.52	240	1.59	1603	197	0.83	2087	217	1.03	1949	3.04	29.42	7.81	0.90
620005	000020	201	5.05	112	11.14	473	5.12	756	257	1.70	1115	267	2.89	989	3.38	68.84	3.78	0.99
620163	000234	153	3.13	110	11.53	207	1.99	761	143	1.18	886	165	1.46	844	2.09	34.78	3.25	0.99
620164	000275	353	7.05	87	9.57	325	2.24	695	218	2.02	800	255	2.09	763	3.67	56.44	3.37	1.03
620166	000173	250	8.42	85	9.70	231	3.34	719	186	3.15	787	201	3.21	761	2.54	76.46	3.25	1.09

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CAR NO	RUN NO	CYCLE 7 IDLE HC	CYCLE 7 IDLE CO	CYCLE 7 IDLE NO	CYCLE 7 IDLE CO2	CYCLES 1-4 HC	CYCLES 1-4 CO	CYCLES 1-4 NO	CYCLES 6-7 HC	CYCLES 6-7 CO	CYCLES 6-7 NO	COMPOSITE HC	COMPOSITE CO	COMPOSITE NO	MASS EQUIVALENT HC	MASS EQUIVALENT CO	MASS EQUIVALENT NOX	MASS EQUIVALENT MOCF
620167	000121	166	1.84	172	13.15	189	1.22	1279	156	0.81	1367	167	0.95	1336	2.11	22.62	5.26	1.01
620168	000209	196	4.45	113	11.02	132	2.14	931	137	1.21	1194	156	1.53	1122	2.24	41.32	4.80	0.97
620169	000267	174	5.09	114	12.07	115	1.61	965	113	1.48	997	113	1.52	995	1.43	36.20	3.99	1.04
620409	000322	209	2.18	123	12.75	245	2.27	960	178	0.95	1252	201	1.41	1149	2.54	33.58	4.62	1.03
620410	000319	168	1.04	271	13.61	150	0.88	1219	128	0.47	1520	135	0.61	1414	1.71	14.52	5.74	1.04
620155	000028	233	1.65	215	13.08	164	0.60	1903	175	0.76	1965	171	0.70	1956	2.45	18.89	7.44	0.90
620156	000252	215	2.11	135	12.10	187	1.97	1085	160	0.76	1677	169	1.19	1469	2.43	32.13	7.00	1.08
620157	000261	113	1.81	178	13.78	111	1.37	745	108	1.11	835	109	1.20	803	1.56	32.40	3.81	1.09
620158	000271	179	2.30	125	12.92	161	0.64	1736	152	0.53	1754	155	0.56	1747	2.22	15.12	8.22	1.06
620160	000309	117	1.67	127	13.41	110	1.07	1209	110	0.60	1280	110	0.76	1255	1.58	20.52	6.27	1.13
620161	000162	393	5.39	92	11.05	245	1.82	1509	275	1.27	1589	264	1.47	1560	3.79	39.63	7.05	1.02
620162	000122	238	3.81	119	12.16	176	1.40	1154	175	1.24	1222	175	1.29	1198	2.51	34.83	5.34	1.01
620241	000277	274	4.12	38	12.15	143	1.02	1515	145	0.95	1530	144	0.97	1063	2.07	26.18	4.71	1.00
620252	000046	213	2.62	205	12.85	235	2.65	1405	171	0.75	2563	191	1.41	2157	2.77	38.07	8.63	0.90
620473	000303	158	0.04	313	13.19	209	1.63	1239	159	0.56	1555	173	0.73	1444	2.48	25.11	6.91	1.08
620173	000125	157	1.28	340	13.59	158	0.97	1381	154	0.77	1775	155	0.83	1637	2.31	23.31	7.60	1.01
620174	000117	172	2.32	174	13.26	234	1.36	1803	234	0.66	2109	257	0.86	2001	3.94	24.15	9.42	1.02
620257	000008	145	2.90	150	13.14	162	0.72	1431	111	0.70	1818	107	0.70	1692	1.60	19.66	7.09	0.91
620762	000102	251	4.62	115	11.57	200	1.33	823	174	1.00	845	183	1.11	837	2.74	31.19	4.04	1.05
620294	000088	308	5.89	114	10.77	500	2.09	1861	478	1.77	2116	485	1.38	2026	7.25	52.81	7.56	1.02
620296	000078	131	1.86	166	13.54	127	1.13	637	103	0.74	721	111	0.89	691	1.66	25.01	3.22	1.01
620313	000138	163	2.20	137	12.77	135	1.33	1413	134	0.92	1684	141	1.06	1583	2.10	29.77	7.60	1.04
620179	000096	220	2.15	180	13.11	140	1.58	1100	151	1.58	1222	164	1.58	1179	1.44	26.15	3.21	1.00
620180	000068	131	1.15	506	13.95	167	0.98	1437	113	0.84	1564	131	0.88	1519	1.16	14.57	4.01	0.98
620182	000109	219	0.56	83	13.60	281	0.98	1202	244	0.88	1408	257	0.92	1336	2.04	13.69	3.34	1.03
620011	000002	356	0.26	91	12.18	344	1.60	1200	373	0.82	1249	362	1.09	1231	2.61	14.80	2.63	0.96
620015	000116	98	3.25	104	12.34	259	1.04	1235	249	1.02	1711	252	1.02	1719	1.82	13.85	3.90	1.02
620028	000021	178	3.87	129	11.79	337	1.13	1647	263	1.14	1481	282	1.13	1537	2.70	19.64	4.30	0.98
620031	000022	361	8.75	47	9.79	469	2.17	1714	417	2.13	1533	435	2.14	1635	4.02	37.10	4.57	0.98
620175	000110	299	5.47	89	9.57	503	1.81	1664	433	1.34	1650	457	1.50	1654	3.30	20.37	3.77	1.02
620177	000042	311	0.29	132	11.96	237	0.81	1818	246	0.55	1569	242	0.66	1727	1.93	9.63	3.77	0.99
620181	000313	182	4.24	85	7.37	553	2.14	1776	511	1.83	1657	525	1.97	1678	3.79	26.75	4.19	1.11
620183	000029	160	1.95	153	11.11	242	1.00	2047	199	0.69	2139	210	0.79	2106	1.68	11.88	4.71	0.90
620185	000143	140	2.00	115	11.80	367	1.45	1768	291	1.05	1777	322	1.18	1773	2.32	16.02	3.80	0.96
620187	000159	212	2.15	88	12.37	503	1.35	1083	324	1.00	1207	386	1.12	1165	2.79	15.21	2.50	0.97
620189	000177	360	6.96	117	6.60	494	2.43	1652	407	2.47	1676	423	2.45	1667	3.06	33.27	4.22	1.14
620190	000265	157	2.70	95	10.39	436	1.43	1400	381	1.07	1504	400	1.17	1467	2.83	16.16	3.46	1.06
620193	000154	198	3.63	110	12.35	340	1.80	1622	254	1.28	1525	284	1.46	1558	2.05	19.82	3.35	0.97
620205	000158	234	3.44	89	11.04	360	1.84	1438	332	1.29	1778	341	1.48	1334	2.46	20.09	2.87	0.97
620413	000320	341	0.42	97	9.78	266	0.86	2376	367	0.59	1885	331	0.68	2056	2.65	10.23	5.27	1.04
620422	000295	194	4.49	96	9.60	543	1.79	1890	427	1.57	1877	457	1.64	1881	3.37	22.27	4.84	1.16
620436	000337	743	0.18	61	11.07	544	1.15	1789	541	0.88	1874	556	0.97	1844	5.14	16.85	4.97	0.95
620445	000344	222	4.90	123	8.92	507	1.93	1807	454	1.48	1789	475	1.84	1795	3.42	24.83	3.86	0.97

APPENDIX C

STATISTICAL INFORMATION

1. Legend and Interpretation of Statistical Tables.
2. Tables:
   - (i) Means and Standard Deviations
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     - C-2 Houston
     - C-3 Los Angeles
     - C-4 Detroit
     - C-5 Denver
     - C-6 Washington, D.C.
     - C-7 Six Cities - Concentration
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   - (ii) Average Mileages
     - C-11 By City and Totals

LEGEND AND INTERPRETATION
OF STATISTICAL TABLES

Key Words	Description
N	Number of cars tested within each make for the indicated emittant.
COMPOSITE	This represents the corrected and weighted emission results of the entire Federal 7-mode test as measured in parts per million (volume) for hydrocarbons and nitrogen oxides and in percent (volume) for carbon monoxide.
MASS EQUIVALENT	This represents the composite emission results of the entire Federal 7-mode test expressed in grams per mile for hydrocarbons, carbon monoxide, and nitrogen oxides.
NO	Nitrogen oxides as dry NO, at test conditions.
NOC	Nitrogen oxides as dry NO, corrected for humidity.
MEAN	Indicates mean emission results for each make.
STD	Indicates standard deviations about the mean emission results for each make.

TABLE C-1 KANSAS CITY

KANSAS CITY — 1970 VEHICLES — STATISTICAL INFORMATION

	COMP HC			COMP CO			COMP NO			NOC		MASS HC			MASS CO			MASS NOX			NOXC	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	20	233.	93.	20	1.61	1.24	20	1553.	467.	1310.	374.	20	2.44	0.78	20	31.22	21.58	20	5.13	1.46	4.32	1.18
CHRYSLER	60	226.	103.	60	1.78	1.01	60	1788.	528.	1525.	433.	60	2.74	1.09	60	40.86	23.20	60	6.73	1.90	5.74	1.54
FORD MOTOR COMPANY	81	229.	71.	81	1.23	0.60	81	1483.	532.	1290.	457.	81	2.70	0.72	81	27.70	13.16	81	5.44	1.84	4.73	1.56
CHEVROLET	95	235.	122.	95	1.78	0.79	95	1227.	337.	1052.	287.	95	2.83	1.27	95	40.99	18.44	95	4.65	1.41	3.98	1.18
PONTIAC	24	178.	83.	24	1.15	1.06	24	1028.	355.	903.	307.	24	2.31	1.04	24	28.68	28.27	24	4.19	1.56	3.68	1.35
OLDSMOBILE	24	170.	62.	24	1.62	0.82	24	1000.	303.	844.	258.	24	2.27	0.77	24	40.86	20.53	24	4.19	1.37	3.53	1.16
BUICK	23	202.	39.	23	1.62	0.75	23	1355.	200.	1241.	207.	23	2.79	0.50	23	41.53	17.61	23	5.81	1.07	5.33	1.08
CADILLAC	5	150.	31.	5	1.18	0.57	5	1393.	337.	1256.	298.	5	2.25	0.46	5	33.09	16.09	5	6.42	1.56	5.79	1.37
ALL GENERAL MOTORS	171	214.	104.	171	1.63	0.85	171	1190.	339.	1033.	300.	171	2.66	1.11	171	39.08	20.47	171	4.73	1.49	4.11	1.33
VOLKSWAGEN	20	286.	133.	20	1.18	0.32	20	1975.	356.	1645.	305.	20	2.28	1.21	20	17.28	4.32	20	4.81	1.02	4.01	0.87
ALL MANUFACTURERS	352	223.	99.	352	1.54	0.86	352	1424.	504.	1227.	424.	352	2.65	1.02	352	35.08	20.10	352	5.26	1.77	4.54	1.51

TABLE C-2 HOUSTON

HOUSTON — 1970 VEHICLES — STATISTICAL INFORMATION

	COMP HC			COMP CO			COMP NO		NOC		MASS HC			MASS CO			MASS NOX		NOXC	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	20	256.	83.	20	1.33	0.76	20	1435.	510.	1589.	518.	20	2.71	0.78	20	26.60	15.46	20	4.73	1.67	5.28	1.90
CHRYSLER	60	257.	127.	60	2.11	1.50	60	1600.	582.	1697.	609.	60	3.08	1.72	60	48.01	35.90	60	5.87	2.11	6.20	2.17
FORD MOTOR COMPANY	81	253.	121.	81	1.66	0.87	81	1222.	487.	1342.	498.	81	2.98	1.47	81	37.65	21.29	81	4.42	1.55	4.86	1.64
CHEVROLET	89	281.	179.	89	1.95	0.90	89	1027.	333.	1104.	361.	89	3.35	1.87	89	45.03	22.59	89	3.87	1.37	4.15	1.45
PONTIAC	26	226.	85.	26	1.64	0.93	26	850.	329.	882.	302.	26	2.95	1.05	26	40.60	23.12	26	3.44	1.32	3.57	1.22
OLDSMOBILE	22	183.	140.	22	1.30	0.82	22	830.	280.	872.	273.	22	2.41	1.77	22	32.40	19.27	22	3.42	1.10	3.60	1.09
BUICK	24	197.	51.	24	2.09	1.10	24	1129.	316.	1133.	329.	24	2.67	0.61	24	53.01	26.31	24	4.83	1.53	4.85	1.60
CADILLAC	8	152.	26.	8	1.43	0.39	8	1455.	429.	1436.	414.	8	2.27	0.39	8	40.31	10.85	8	6.70	1.98	6.61	1.91
ALL GENERAL MOTORS	169	241.	151.	169	1.81	0.94	169	1009.	354.	1059.	362.	169	3.02	1.61	169	43.62	22.92	169	4.01	1.56	4.20	1.56
VOLKSWAGEN	20	396.	151.	20	1.60	0.78	20	1528.	295.	1643.	354.	20	3.05	1.35	20	22.91	10.69	20	3.63	0.80	3.90	0.96
ALL MANUFACTURERS	350	256.	141.	350	1.79	1.04	350	1214.	495.	1298.	521.	350	3.00	1.55	350	40.83	25.27	350	4.44	1.77	4.74	1.84

TABLE C-3 LOS ANGELES

LOS ANGELES — 1970 VEHICLES — STATISTICAL INFORMATION

	COMP HC			COMP CO			COMP NO		NOC		MASS HC			MASS CO			MASS NOX		NOXC	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	19	209.	68.	19	1.47	0.99	19	1714.	498.	1608.	468.	19	2.20	0.73	19	23.11	20.73	19	5.52	1.47	5.18	1.38
CHRYSLER	57	202.	75.	57	1.54	1.19	57	1830.	607.	1698.	553.	57	2.43	0.86	57	35.43	27.53	57	6.79	2.07	6.30	1.90
FORD MOTOR COMPANY	81	240.	229.	81	1.44	0.80	81	1486.	519.	1391.	473.	81	2.82	2.87	81	32.00	18.55	81	5.37	1.69	5.02	1.56
CHEVROLET	92	200.	86.	92	1.50	0.81	92	1254.	406.	1168.	384.	92	2.44	1.01	92	34.61	18.94	92	4.80	1.69	4.47	1.57
PONTIAC	29	188.	132.	29	1.33	0.96	29	1093.	323.	1038.	314.	29	2.43	1.49	29	32.82	23.73	29	4.46	1.38	4.22	1.36
OLDSMOBILE	22	166.	190.	22	0.92	0.91	22	1168.	427.	1091.	405.	22	2.17	2.28	22	22.60	19.96	22	4.93	1.91	4.61	1.80
BUICK	23	155.	37.	23	1.50	0.82	23	1402.	261.	1342.	270.	23	2.08	0.49	23	37.30	19.15	23	5.91	1.43	5.63	1.43
CADILLAC	9	143.	23.	9	1.46	0.48	9	1561.	237.	1475.	233.	9	2.12	0.33	9	40.83	13.18	9	7.17	1.09	6.78	1.06
ALL GENERAL MOTORS	175	185.	108.	175	1.40	0.85	175	1254.	387.	1176.	370.	175	2.34	1.25	175	33.48	20.03	175	5.01	1.73	4.72	1.65
VOLKSWAGEN	20	294.	142.	20	1.49	0.64	20	1812.	438.	1719.	452.	20	2.31	1.24	20	21.34	8.61	20	4.41	1.37	4.18	1.30
ALL MANUFACTURERS	352	208.	145.	352	1.44	0.90	352	1457.	519.	1364.	486.	352	2.46	1.71	352	32.53	20.83	352	5.38	1.86	5.04	1.74

TABLE C-4 DETROIT

DETROIT 1970 VEHICLES STATISTICAL INFORMATION

	-----COMP HC----			-----COMP CO----			----COMP NO---------NOC----					-----MASS HC----			-----MASS CO------			-----MASS NOX-------NOXC----				
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	20	239.	76.	20	1.31	0.87	20	1541.	496.	1473.	522.	20	2.55	0.75	20	26.12	17.70	20	5.09	1.55	4.86	1.62
CHRYSLER	60	247.	70.	60	1.96	1.28	60	1521.	494.	1456.	483.	60	3.05	0.93	60	45.48	30.43	60	5.71	1.67	5.47	1.64
FORD MOTOR COMPANY	81	289.	169.	81	1.46	0.66	81	1235.	457.	1193.	454.	81	3.44	2.10	81	33.16	16.30	81	4.49	1.50	4.33	1.48
CHEVROLET	91	277.	139.	91	1.92	1.07	91	993.	358.	970.	361.	91	3.33	1.46	91	43.89	23.12	91	3.77	1.45	3.69	1.47
PONTIAC	27	217.	101.	27	1.27	0.66	27	928.	276.	896.	277.	27	2.94	1.34	27	32.18	16.34	27	3.91	1.27	3.77	1.27
OLDSMOBILE	23	173.	49.	23	1.64	0.86	23	827.	250.	812.	281.	23	2.35	0.62	23	42.19	22.55	23	3.50	1.13	3.44	1.26
BUICK	23	234.	71.	23	2.26	1.06	23	1051.	288.	1033.	304.	23	3.19	0.93	23	57.52	25.15	23	4.49	1.43	4.41	1.49
CADILLAC	7	151.	22.	7	1.52	0.56	7	1264.	279.	1250.	281.	7	2.26	0.33	7	42.81	15.69	7	5.84	1.28	5.78	1.29
ALL GENERAL MOTORS	171	243.	120.	171	1.81	1.00	171	979.	330.	957.	337.	171	3.08	1.31	171	43.60	22.96	171	3.94	1.44	3.85	1.48
VOLKSWAGEN	20	301.	117.	20	1.69	0.94	20	1510.	439.	1448.	442.	20	2.27	0.81	20	23.85	12.65	20	3.58	1.20	3.43	1.21
ALL MANUFACTURERS	352	257.	126.	352	1.72	0.99	352	1192.	468.	1154.	460.	352	3.08	1.46	352	39.40	23.34	352	4.41	1.63	4.27	1.62

2033A

TABLE C-5 DENVER

DENVER — 1970 VEHICLES — STATISTICAL INFORMATION

	COMP HC			COMP CO			COMP NO			NOC		MASS HC			MASS CO			MASS NOX			NOXC	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	20	356.	84.	20	2.38	0.84	20	1280.	421.	1290.	463.	20	3.76	1.09	20	46.65	16.29	20	4.16	1.46	4.19	1.57
CHRYSLER	60	407.	408.	60	3.49	1.30	60	1107.	453.	1065.	451.	60	4.85	4.59	60	79.64	32.42	60	4.09	1.65	3.93	1.62
FORD MOTOR COMPANY	81	358.	125.	81	2.39	0.98	81	1236.	559.	1169.	511.	81	4.15	1.41	81	52.57	21.29	81	4.45	1.96	4.21	1.79
CHEVROLET	91	384.	170.	91	2.82	1.12	91	1011.	292.	948.	272.	91	4.63	1.89	91	64.52	25.67	91	3.79	1.16	3.55	1.06
PONTIAC	27	322.	170.	27	2.50	1.26	27	1068.	443.	1021.	461.	27	4.14	1.96	27	61.08	30.14	27	4.33	1.91	4.14	1.98
OLDSMOBILE	22	254.	68.	22	3.01	0.76	22	758.	248.	707.	225.	22	3.39	0.77	22	75.84	16.34	22	3.19	1.18	2.97	1.08
BUICK	23	279.	98.	23	3.37	1.27	23	866.	279.	814.	251.	23	3.82	1.30	23	86.88	30.68	23	3.70	1.29	3.48	1.15
CADILLAC	8	244.	35.	8	4.23	1.09	8	738.	218.	653.	180.	8	3.63	0.49	8	118.22	30.87	8	3.37	0.96	2.98	0.80
ALL GENERAL MOTORS	171	337.	157.	171	2.93	1.17	171	955.	327.	897.	316.	171	4.24	1.73	171	70.96	29.36	171	3.77	1.34	3.53	1.28
VOLKSWAGEN	20	434.	140.	20	2.82	0.69	20	1893.	440.	1697.	396.	20	3.39	1.09	20	41.31	9.03	20	4.64	1.39	4.16	1.25
ALL MANUFACTURERS	352	360.	214.	352	2.87	1.17	352	1117.	479.	1056.	452.	352	4.25	2.39	352	65.14	29.27	352	4.05	1.59	3.83	1.51

TABLE C-6 WASHINGTON D.C.

WASHINGTON D.C. — 1970 VEHICLES — STATISTICAL INFORMATION

	COMP HC			COMP CO			COMP NO			NOC		MASS HC			MASS CO			MASS NOX			NCRC	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	30	240.	92.	30	1.39	0.92	30	1394.	435.	1421.	424.	30	2.57	0.94	30	21.02	17.71	30	4.68	1.61	4.77	1.57
CHRYSLER	66	262.	77.	66	1.71	0.76	66	1571.	514.	1589.	512.	66	3.15	1.01	66	33.04	18.53	66	5.75	1.76	5.82	1.78
FORD MOTOR COMPANY	75	278.	268.	75	1.12	0.64	75	1351.	547.	1348.	536.	75	3.17	2.76	75	24.86	15.07	75	4.91	1.84	4.80	1.84
CHEVROLET	77	270.	154.	77	1.53	0.78	77	1095.	285.	1105.	285.	77	3.23	1.71	77	34.88	17.90	77	4.12	1.21	4.16	1.21
PONTIAC	23	231.	190.	23	0.83	0.45	23	1035.	252.	1040.	251.	23	3.07	2.60	23	20.83	11.49	23	4.24	1.05	4.26	1.07
OLDSMOBILE	20	169.	88.	20	1.11	0.58	20	913.	227.	961.	200.	20	2.25	1.08	20	28.07	15.30	20	3.83	1.01	4.00	0.89
BUICK	24	182.	48.	24	1.33	0.65	24	1321.	414.	1338.	381.	24	2.51	0.68	24	34.19	15.47	24	5.66	1.95	5.73	1.91
CADILLAC	7	206.	133.	7	1.05	0.39	7	1495.	529.	1503.	531.	7	3.07	1.99	7	29.41	11.03	7	6.90	2.45	6.93	2.45
ALL GENERAL MOTORS	151	234.	145.	151	1.31	0.72	151	1117.	338.	1132.	328.	151	2.95	1.73	151	31.48	16.71	151	4.47	1.58	4.53	1.54
VOLKSWAGEN	21	348.	116.	21	1.32	0.49	21	1613.	263.	1618.	293.	21	2.70	0.94	21	10.21	7.20	21	3.88	0.76	3.88	0.75
ALL MANUFACTURERS	343	257.	163.	343	1.33	0.75	343	1310.	471.	1322.	464.	343	2.99	1.82	343	23.82	17.41	343	4.77	1.72	4.82	1.79

TABLE C-7

SIX CITIES - CONCENTRATION DATA

1970 Vehicles

Statistical Information

	-----COMP HC----			-----COMP CO----			----COMP NC----------			NOC----	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	129	255.	94.	129	1.49	1.02	129	1477.	479.	1445.	467.
CHRYSLER	363	267.	196.	363	2.10	1.35	363	1567.	577.	1505.	550.
FORD MOTOR COMPANY	480	274.	180.	480	1.56	0.87	480	1335.	526.	1288.	493.
CHEVROLET	535	274.	155.	535	1.92	1.02	535	1103.	354.	1057.	337.
PONTIAC	156	227.	139.	156	1.47	1.06	156	1002.	343.	964.	330.
OLDSMOBILE	133	186.	113.	133	1.61	1.04	133	918.	322.	879.	301.
BUICK	140	208.	72.	140	2.03	1.17	140	1189.	352.	1151.	345.
CADILLAC	44	175.	68.	44	1.87	1.28	44	1315.	440.	1262.	442.
ALL GENERAL MOTORS	1008	242.	140.	1008	1.82	1.08	1008	1084.	364.	1041.	349.
VOLKSWAGEN	121	343.	142.	121	1.68	0.85	121	1721.	412.	1628.	380.
ALL MANUFACTURERS	2101	260.	161.	2101	1.78	1.09	2101	1286.	505.	1236.	480.

TABLE C-8

SIX CITIES - MASS DATA

1970 Vehicles

Statistical Information

	-----MASS HC----			-----MASS CO------			-----MASS NOX-------NOXC----				
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	129	2.70	0.97	129	29.42	19.71	129	4.86	1.57	4.76	1.58
CHRYSLER	363	3.22	2.27	363	48.03	31.84	363	5.81	2.05	5.57	1.94
FORD MOTOR COMPANY	480	3.21	2.08	480	34.78	19.94	480	4.83	1.79	4.66	1.67
CHEVROLET	535	3.30	1.70	535	44.18	23.51	535	4.17	1.45	3.99	1.37
PONTIAC	156	2.98	1.73	156	36.49	26.12	156	4.10	1.46	3.95	1.42
OLDSMOBILE	133	2.47	1.39	133	40.53	25.56	133	3.84	1.42	3.68	1.33
BUICK	140	2.84	0.96	140	51.62	28.73	140	5.07	1.66	4.91	1.63
CADILLAC	44	2.61	1.00	44	52.43	35.88	44	6.05	2.03	5.81	2.04
ALL GENERAL MOTORS	1008	3.05	1.58	1008	43.90	25.96	1008	4.32	1.59	4.15	1.53
ALL MANUFACTURERS	121	2.67	1.18	121	24.27	11.94	121	4.15	1.20	3.93	1.10
	2101	3.07	1.80	2101	40.51	25.81	2101	4.72	1.79	4.54	1.70

TABLE C-9

FIVE CITIES - CONCENTRATION DATA
(Excluding Denver)

1970 Vehicles

Statistical Information

-----COMP HC----			-----COMP CO----			----COMP NO------			----NOC----	
N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS										
109	236.	84.	109	1.33	0.97	109	1513.	482.	1473.	465.
CHRYSLER										
303	239.	95.	303	1.82	1.18	303	1658.	555.	1592.	526
FORD MOTOR COMPANY										
399	257.	185.	399	1.39	0.74	399	1355.	518.	1312.	486.
CHEVROLET										
444	251.	141.	444	1.73	0.89	444	1122.	362.	1079.	344.
PONTIAC										
129	207.	124.	129	1.25	0.87	129	988.	318.	952.	296.
OLDSMOBILE										
111	173.	115.	111	1.33	0.85	111	950.	327.	913.	304.
BUICK										
117	194.	56.	117	1.77	.95	117	1254.	330.	1217.	323.
CADILLAC										
36	160.	63.	36	1.35	0.48	36	1443.	367.	1397.	361.
ALL GENERAL MOTORS										
837	223.	128.	837	1.59	0.90	837	1110.	366.	1070.	349.
VOLKSWAGEN										
101	325.	136.	101	1.45	0.68	101	1687.	400.	1614.	378.
ALL MANUFACTURERS										
1749	240.	139.	1749	1.56	0.93	1749	1320.	503.	1272.	477.

TABLE C-10

FIVE CITIES - MASS DATA
(Excluding Denver)

1970 Vehicles

Statistical Information

	-----MASS HC----			-----MASS CO----			----MASS NO_x----------		NOC----	
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	MEAN	S.D.
AMERICAN MOTORS	109	2.50	0.82	109	26.26	18.67	109	4.98	1.56	4.86	1.56
CHRYSLER	303	2.90	1.19	303	41.77	27.79	303	6.15	1.95	5.89	1.83
FORD MOTOR COMPANY	399	3.02	2.14	399	31.17	17.61	399	4.91	1.74	4.75	1.63
CHEVROLET	444	3.03	1.52	444	40.01	20.73	444	4.25	1.50	4.08	1.41
PONTIAC	129	2.74	1.59	129	31.34	22.08	129	4.05	1.36	3.91	1.28
OLDSMOBILE	111	2.29	1.41	111	33.53	20.84	111	3.97	1.43	3.82	1.33
BUICK	117	2.65	0.74	117	44.69	22.71	117	5.34	1.59	5.19	1.56
CADILLAC	36	2.38	0.95	36	37.81	13.49	36	6.65	1.69	6.44	1.66
ALL GENERAL MOTORS	837	2.81	1.44	837	38.37	21.36	837	4.43	1.62	4.28	1.54
VOLKSWAGEN	101	2.53	1.15	101	20.90	9.27	101	4.05	1.14	3.88	1.06
ALL MANUFACTURERS	1749	2.83	1.55	1749	35.55	21.94	1749	4.85	1.80	4.68	1.70

TABLE C-11

AVERAGE MILEAGES FOR 1970 VEHICLES

	K.C.		Houston		L.A.		Detroit		Denver		D.C.		6-Cities Total		5-Cities* Total	
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Amer	20	10347	20	10716	19	7418	20	9190	20	9627	30	10808	129	9798	109	9819
Chry	60	10055	60	11360	57	8410	60	9725	60	9125	66	10743	363	9929	303	10088
Ford	81	10769	81	11974	81	7691	81	9545	81	9880	75	11290	480	10178	399	10238
Chev	95	9839	89	12645	92	7824	91	15664	91	10465	77	10697	535	11180	444	11327
Pont	24	11797	26	13996	29	9400	27	10663	27	10265	23	12340	156	11337	129	11561
Olds	24	10907	22	13251	22	8605	23	13923	22	12885	20	11541	133	11858	111	11654
Buick	23	14064	24	12454	23	7945	23	10433	23	10224	24	10991	140	11028	117	11187
Cadi	5	14821	8	12481	9	12484	7	10698	8	12185	7	11389	44	12236	36	12248
G.M.	171	10978	169	12897	175	8439	171	13733	171	10793	151	11138	1008	11319	837	11426
V.W.	20	8474	20	10575	20	7602	20	7912	20	8464	21	12087	121	9210	101	9357
Total	352	10594	350	12163	352	8160	352	11497	352	10100	343	11124	2101	10601	1749	10704

* Excluding Denver

APPENDIX D

VARIANCE ANALYSIS TABLES

1. Method Used

2. Tables:

   (i) Between Makes In The Same City

   D-1 Kansas City

   D-2 Houston

   D-3 Los Angeles

   D-4 Detroit

   D-5 Denver

   D-6 Washington, D.C.

   (ii) Between Cities For The Same Make (Denver Excluded)

   D-7 American Motors

   D-8 Chrysler

   D-9 Ford

   D-10 Chevrolet

   D-11 Pontiac

   D-12 Oldsmobile

   D-13 Buick

   D-14 Cadillac

   D-15 All General Motors

   D-16 Volkswagen

   D-17 All Vehicles

APPENDIX D

VARIANCE ANALYSIS TABLES (CONT'D)

(iii) Between Five Cities and Denver

D-18 All Vehicles

(iv) Between Makes in Five Cities (Denver Excluded)

D-19 All Vehicles

(v) Car To Car Variability

D-20 HC, PPM

D-21 CO, %

D-22 NO_x, PPM

D-23 NO_x Corr., PPM

D-24 HC, Gms/Mile

D-25 CO, Gms/Mile

D-26 NO_x, Gms/Mile

D-27 NO_x Corr., Gms/Mile

Method Used

The one-way variance analyses with unequal numbers in the subgroups were computed from the number of data values, means and standard deviations for the city-make-emission variable combinations presented in Appendix C. The means and standard deviations had been rounded to the nearest PPM and to the nearest 0.01 percent CO or grams/mile. This causes some uncertainty in the sums of squares and mean squares -- they are probably correct to about three significant figures.

The F values, grand average, standard deviation about the grand average (labeled Total SD), and the Within Group Standard Deviation are correct to the accuracy shown.

The Within SD value is the best estimate of the car-to-car variation for the particular group involved. These values have been collected in Tables D-20 thru D-27.

TABLES D-1 THRU D-6

Between Makes In The Same City

TABLE D-1

Makes in same city — Kansas City

Comp HC ppm

Makes	Sum of Squares	D.F	Mean Square	Non-scaled units		
Between	25.13	8	3.14	F	3.35**	Grand
Within	321.29	343	0.94	Within SD	97	average:
Total	346.42	351	0.99	Total SD	99	223

scaled 0.0001

Comp CO per cent

Between	24.00	8	3.00	F	4.40**	Grand
Within	233.79	343	0.68	Within SD	0.83	average:
Total	257.79	351	0.73	Total SD	0.86	1.54

not scaled

Comp NO_x ppm

Between	2651.59	8	331.45	F	18.14**	Grand
Within	6266.18	343	18.27	Within SD	427	average:
Total	8917.77	351	25.41	Total SD	504	1424

scaled 0.0001

Comp NO_x C ppm

Between	1824.00	8	228.00	F	17.40**	Grand
Within	4493.42	343	13.10	Within SD	362	average:
Total	6317.42	351	18.00	Total SD	424	1227

scaled 0.0001

F 5% 1.966 1% 2.564

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TABLE D-1 (cont.)

Makes in same city Kansas City

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	14.87	8	1.86	F	1.84	Grand and average: 2.65
	Within	347.42	343	1.01	Within SD	1.01	
	Total	362.29	351	1.03	Total SD	1.02	
Mass CO	Between	19130.58	8	2391.32	F	6.68**	Grand average: 35.08
	Within	122710.50	343	357.76	Within SD	18.91	
	Total	141841.08	351	404.11	Total SD	20.10	
Mass NO_x	Between	240.66	8	30.08	F	11.93**	Grand average: 5.86
	Within	865.05	343	2.52	Within SD	1.59	
	Total	1105.71	351	3.15	Total SD	1.77	
Mass $NO_x C$	Between	190.10	8	23.76	F	13.31**	Grand average: 4.54
	Within	612.37	343	1.79	Within SD	1.34	
	Total	802.47	351	2.29	Total SD	1.51	

F 5% 1.966 1% 2.564

TABLE D-2

Makes in same city Houston

	Makes	Sum of Squares	D.F	Mean Square	Non-scaled units		
Comp HC ppm	Between	75.90	8	9.49	F	5.25 **	Grand
	Within	616.34	341	1.81	Within SD	134	average:
	Total	692.24	349	1.98	Total SD	141	257
		scaled	0.0001				

Comp CO per cent	Between	23.81	8	2.98	F	2.89 **	Grand
	Within	351.75	341	1.03	Within SD	1.02	average:
	Total	375.56	349	1.08	Total SD	1.04	1.79
		not scaled					

Comp NO_x ppm	Between	2233.28	8	279.16	F	15.05 **	Grand
	Within	6324.92	341	18.55	Within SD	431	average:
	Total	8558.21	349	24.52	Total SD	495	1214
		scaled	0.0001				

Comp NO_x C ppm	Between	2643.03	8	330.38	F	16.52 **	Grand
	Within	6820.42	341	20.00	Within SD	447	average:
	Total	9463.45	349	27.12	Total SD	521	1298
		scaled	0.0001				

F - 5% 1.966 1% 2.565

TABLE D-2 (cont.)

Makes in same city Houston

Mass HC g/mile

Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	27.64	8	3.46	F	1.47	Grand
Within	804.31	341	2.36	Within SD	1.54	average:
Total	831.95	349	2.38	Total SD	1.54	3.00

Mass CO

Between	21082.02	8	2635.25	F	4.45**	Grand
Within	201826.88	341	591.87	Within SD	24.33	average:
Total	222908.89	349	638.71	Total SD	25.27	40.83

Mass NO_x

Between	259.83	8	32.48	F	13.26**	Grand
Within	835.44	341	2.45	Within SD	1.57	average:
Total	1095.28	349	3.14	Total SD	1.77	4.45

Mass NO_xC

Between	272.43	8	34.05	F	12.75**	Grand
Within	910.69	341	2.67	Within SD	1.63	average:
Total	1183.12	349	3.39	Total SD	1.84	4.74

F 5% 1.966 1% 2.565

TABLE D-3

Makes in same city LOS ANGELES

Makes	Sum of Squares	D.F	Mean Square	Non-scaled units	
Between	39.19	8	4.90	F 2.42 *	Grand
Within	693.00	343	2.02	Within SD 1.42	average:
Total	732.18	351	2.09	Total SD 1.44	2.08

Comp HC ppm

scaled 0.0001

Between	7.35	8	0.92	F 1.14	Grand
Within	275.46	343	0.80	Within SD 0.90	average:
Total	282.82	351	0.81	Total SD 0.90	1.44

Comp CO per cent

not scaled

Between	2126.00	8	265.75	F 12.44 **	Grand
Within	7324.85	343	21.36	Within SD 4.62	average:
Total	9450.84	351	26.93	Total SD 5.19	14.57

Comp NO_x ppm

scaled 0.0001

Between	1843.32	8	230.41	F 12.25 **	Grand
Within	6450.97	343	18.81	Within SD 4.34	average:
Total	8294.28	351	23.63	Total SD 4.86	13.64

Comp NO_x C ppm

scaled 0.0001

F 5% 1.966 1% 2.564

TABLE D-3 (cont.)

Makes in same city LOS ANGELES

Mass HC g/mile

Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	18.55	8	2.32	F	0,79	Grand
Within	1009.49	343	2.94	Within SD	1.72	average:
Total	1028.04	351	2.93	Total SD	1.71	2.46

Mass CO

Between	6941.78	8	867.72	F	2.05 *	Grand
Within	145349.39	343	423.76	Within SD	20.59	average:
Total	152291.17	351	433.88	Total SD	20.83	32.53

Mass NO_x

Between	227.76	8	28.47	F	9.89 **	Grand
Within	987.33	343	2.88	Within SD	1.70	average:
Total	1215.09	351	346	Total SD	1.86	5.38

Mass NO_xC

Between	194.40	8	24.30	F	9.56 **	Grand
Within	871.52	343	2.54	Within SD	1.59	average:
Total	1065.92	351	3.04	Total SD	1.74	5.04

F 5% 1.966 1% 2.564

TABLE D-4

Makes in same city DETROIT

Comp HC ppm

Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	46.68	8	5.84	F	3.91 **	Grand
Within	511.46	343	1.49	Within SD	122	average:
Total	558.14	351	1.59	Total SD	126	257

scaled 0.0001

Comp CO per cent

Between	28.55	8	3.57	F	3.83 **	Grand
Within	319.92	343	0.93	Within SD	0.97	average:
Total	348.47	351	0.99	Total SD	1.00	1.72

not scaled

Comp NO_x ppm

Between	2014.58	8	251.82	F	15.25 **	Grand
Within	5662.42	343	16.51	Within SD	4 06	average:
Total	7677.00	351	21.87	Total SD	467	1193

scaled 0.0001

Comp NO_x C ppm

Between	1732.89	8	216.61	F	13.01 **	Grand
Within	5711.03	343	16.65	Within SD	4 08	average:
Total	7443.92	351	21.21	Total SD	461	1154

scaled 0.0001

F 5% 1.966 1% 2.564

TABLE D-4 (cont.)

Makes in same city DETROIT

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	52.75	8	6.59	F	3.26 **	Grand
	Within	693.65	343	2.02	Within SD	1.42	average:
	Total	746.40	351	2.13	Total SD	1.46	3.08

Mass CO	Between	24789.30	8	3098.66	F	6.38 **	Grand
	Within	166510.83	343	485.45	Within SD	22.03	average:
	Total	191300.14	351	545.01	Total SD	23.34	39.40

Mass NO_x	Between	202.47	8	25.31	F	11.87 **	Grand
	Within	731.62	343	2.13	Within SD	1.46	average:
	Total	934.10	351	2.66	Total SD	1.63	4.41

Mass NO_xC	Between	177.38	8	22.17	F	10.25 **	Grand
	Within	741.77	343	2.16	Within SD	1.47	average:
	Total	919.15	351	2.62	Total SD	1.62	4.27

F 5% 1.966 1% 2.564

TABLE D-5

Makes in same city DENVER

	Makes	Sum of Squares	D.F	Mean Square	Non-scaled units		
Comp HC ppm	Between	83.98	8	10.50	F	2.36*	Grand
	Within	1524.72	343	4.45	Within SD	211	average:
	Total	1608.70	351	4.58	Total SD	214	360
	scaled 0.0001						
Comp CO per cent	Between	71.47	8	8.93	F	7.49**	Grand
	Within	409.10	343	1.19	Within SD	1.09	average:
	Total	480.57	351	1.37	Total SD	1.17	2.87
	not scaled						
Comp NO_x ppm	Between	2024.87	8	253.11	F	14.41**	Grand
	Within	6026.48	343	17.57	Within SD	419	average:
	Total	8051.35	351	22.94	Total SD	479	1117
	scaled 0.0001						
Comp NO_x C ppm	Between	1677.22	8	209.65	F	13.12**	Grand
	Within	5480.29	343	15.98	Within SD	4.00	average:
	Total	7157.52	351	20.39	Total SD	452	1056
	scaled 0.0001						

F 5% 1.966 1% 2.564

TABLE D-5 (cont.)

Makes in same city DENVER

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	79.07	8	9.88	F	1.77	Grand average: 4.25
	Within	1919.90	343	5.60	Within SD	2.37	
	Total	1998.96	351	5.70	Total SD	2.39	
Mass CO	Between	80017.52	8	10002.19	F	15.54**	Grand average: 65.14
	Within	220774.34	343	643.66	Within SD	25.37	
	Total	300791.86	351	856.96	Total SD	29.27	
Mass NO_x	Between	51.32	8	6.41	F	2.64**	Grand average: 4.05
	Within	833.42	343	2.43	Within SD	1.56	
	Total	884.74	351	2.52	Total SD	1.59	
Mass NO_xC	Between	51.66	8	6.46	F	2.96**	Grand average: 3.83
	Within	748.81	343	2.18	Within SD	1.48	
	Total	800.48	351	2.28	Total SD	1.51	

F 5% 1.966 1% 2.564

TABLE D-6

Makes in same city WASHINGTON

Makes	Sum of Squares	D.F	Mean Square	Non-scaled units		
Between	55.38	8	6.92	F	2.54 *	Grand
Within	911.78	334	2.73	Within SD	1 65	average:
Total	967.16	342	2.83	Total SD	168	256

Comp HC ppm

scaled 0.0001

Between	25.53	8	3.19	F	6.46 **	Grand
Within	164.92	334	0.49	Within SD	0.70	average:
Total	190.45	342	0.56	Total SD	0.75	1.32

Comp CO per cent

not scaled

Between	1536.05	8	192.01	F	10.63 **	Grand
Within	6035.55	334	18.07	Within SD	425	average:
Total	7571.60	342	22.14	Total SD	471	1310

Comp NO_x ppm

scaled 0.0001

Between	1518.65	8	189.83	F	10.82 **	Grand
Within	5857.93	334	17.54	Within SD	419	average:
Total	7376.59	342	21.57	Total SD	464	1322

Comp NO_xC ppm

scaled 0.0001

F 5% 1,966 1% 2.566

TABLE D-6 (cont.)

Makes in same city WASHINGTON

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	32.29	8	4.04	F	1.22	Grand
	Within	1110.81	334	3.30	Within SD	1.82	average:
	Total	1133.10	342	3.31	Total SD	1.82	2.99
Mass CO	Between	16493.98	8	2061.74	F	7.90**	Grand
	Within	87194.36	334	261.06	Within SD	16.16	average:
	Total	103688.34	342	303.18	Total SD	17.41	29.82
Mass NO_x	Between	187.81	8	23.48	F	9.47**	Grand
	Within	827.99	334	2.48	Within SD	1.57	average:
	Total	1015.80	342	2.97	Total SD	1.72	4.77
Mass NO_xC	Between	189.90	8	23.74	F	9.88**	Grand
	Within	802.09	334	2.40	Within SD	1.55	average:
	Total	991.99	342	2.90	Total SD	1.70	4.82

F 5% 1.966 1% 2.566

TABLES D-7 THRU D-17

Between Cities For The Same Make
(Denver Excluded)

TABLE D-7

Between the 5 cities for the same make American Motors Corp

Comp HC ppm

Cities	Sum of Squares	Df	Mean Square	Non-scaled units		
Between	2.27	4	0.57	F	0.80	Grand
Within	73.37	104	0.71	Within SD	84	average:
Total	75.63	108	0.70	Total SD	84	236

scaled 0.0001

Comp CO per cent

Between	4.29	4	1.07	F	1.15	Grand
Within	96.76	104	0.93	Within SD	0.96	average:
Total	101.06	108	0.94	Total SD	0.97	1.33

not scaled

Comp NO_x ppm

Between	135.42	4	33.85	F	1.48	Grand
Within	2371.15	104	22.80	Within SD	477	average:
Total	2506.57	108	23.21	Total SD	482	1513

scaled 0.0001

Comp NO_xC ppm

Between	122.79	4	30.70	F	1.45	Grand
Within	2208.89	104	21.24	Within SD	461	average:
Total	2331.68	106	21.59	Total SD	465	1474

scaled 0.0001

F 5% 2.383 1% 3.506

Note: Denver data not included

TABLE D-7 (cont.)

Between the 5 cities for the same make Amer Motors

	Cities	Sum of Squares	D.F	Mean Square	Non-scaled units		
Mass HC g/mile	Between	2.86	4	0.71	F	1.08	Grand
	Within	69.02	104	0.66	Within SD	0.81	average:
	Total	71.88	108	0.67	Total SD	0.82	2.50
Mass CO	Between	1472.79	4	368.20	F	1.06	Grand
	Within	36172.83	104	347.82	Within SD	18.65	average:
	Total	37645.62	108	348.57	Total SD	18.67	26.26
Mass NO_x	Between	10.16	4	2.54	F	1.04	Grand
	Within	253.20	104	2.43	Within SD	1.56	average:
	Total	263.37	108	2.44	Total SD	1.56	4.99
Mass NO_x C	Between	11.54	4	2.88	F	1.20	Grand
	Within	250.67	104	2.41	Within SD	1.55	average:
	Total	262.21	108	2.43	Total SD	1.56	4.87

F 5% 2.383 1% 3.506

Note: Denver Data not included

TABLE D-8

Between the 5 cities for the same make Chrysler Corp

Comp HC ppm

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	14.62	4	3.66	F	4.24**	Grand
Within	256.70	298	0.86	Within SD	93	average:
Total	271.33	302	0.90	Total SD	95	240

scaled 0.0001

Comp CO per cent

Between	11.59	4	2.90	F	2.12	Grand
Within	406.45	298	1.36	Within SD	1.17	average:
Total	418.03	302	1.38	Total SD	1.18	1.82

not scaled

Comp NO_x ppm

Between	452.77	4	113.19	F	3.81**	Grand
Within	8863.70	298	29.74	Within SD	545	average:
Total	9316.47	302	30.85	Total SD	555	1659

scaled 0.0001

Comp NO_xC ppm

Between	268.16	4	67.04	F	2.47*	Grand
Within	8087.25	298	27.14	Within SD	521	average:
Total	8355.42	302	27.67	Total SD	526	1592

scaled 0.0001

F 5% 2.402 1% 3.384

Note: Denver data not included

TABLE D-8 (cont.)

Between the 5 cities for the same make Chrysler Corp

Mass HC g/mile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	21.55	4	5.39	F	3.98 **	Grand
Within	403.40	298	1.35	Within SD	1.16	average:
Total	424.94	302	1.41	Total SD	1.19	2.90

Mass CO

Between	6062.58	4	1515.64	F	1.99	Grand
Within	227189.97	298	762.38	Within SD	27.61	average:
Total	233252.55	302	772.36	Total SD	27.79	41.79

Mass NO_x

Between	70.40	4	17.60	F	4.85 **	Grand
Within	1081.51	298	3.63	Within SD	1.91	average:
Total	1151.91	302	3.81	Total SD	1.95	6.16

Mass NO_xC

Between	27.57	4	6.89	F	2.09	Grand
Within	984.54	298	3.30	Within SD	1.82	average:
Total	1012.11	302	3.35	Total SD	1.83	5.90

F 5% 2.402 1% 3.384

Note: Denver Data not included

TABLE D-9

Between the 5 cities for the same make Ford Motor Co.

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units	
Comp HC ppm	Between	20.41	4	5.10	F 1.50	Grand
	Within	1336.97	394	3.39	Within SD 184	average:
	Total	1357.38	398	3.41	Total SD 185	257
		scaled 0.0001				

Comp CO per cent	Between	14.04	4	3.51	F 6.72**	Grand
	Within	205.71	394	0.52	Within SD 0.72	average:
	Total	219.75	398	0.55	Total SD 0.74	1.39
		not scaled				

Comp NO_x ppm	Between	531.75	4	132.94	F 5.17**	Grand
	Within	10127.28	394	25.70	Within SD 5 07	average:
	Total	10659.03	398	26.78	Total SD 518	1355
		scaled 0.0001				

Comp NO_x C ppm	Between	186.18	4	46.55	F 1.99	Grand
	Within	9219.57	394	23.40	Within SD 4 84	average:
	Total	9405.76	398	23.63	Total SD 486	1312
		scaled 0.0001				

F 5% 2.394 1% 3.368

Note: Denver data not included

TABLE D-9 (cont.)

Between the 5 cities for the same make Ford Motor Co.

Mass HC g/mile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	27.64	4	6.91	F	1.52	Grand
Within	1789.80	394	4.54	Within SD	2.13	average:
Total	1817.44	398	4.57	Total SD	2.14	3.02

Mass CO

Between	7739.31	4	1934.83	F	6.59 **	Grand
Within	115705.14	394	293.67	Within SD	17.14	average:
Total	123444.45	398	310.16	Total SD	17.61	31.17

Mass NO_x

Between	74.38	4	18.59	F	6.47 **	Grand
Within	1133.08	394	2.88	Within SD	1.70	average:
Total	1207.46	398	3.03	Total SD	1.74	4.91

Mass NO_xC

Between	21.39	4	5.35	F	2.04	Grand
Within	1030.31	394	2.62	Within SD	1.62	average:
Total	1051.70	398	2.64	Total SD	1.63	4.75

F 5% 2.394 1% 3.368

Note: Denver Data not included

TABLE D-10

Between the 5 cities for the same make Chevrolet .

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Comp HC ppm						
Between	43.28	4	10.82	F	5.63**	Grand
Within	843.30	439	1.92	Within SD	139	average:
Total	886.59	443	2.00	Total SD	141	252
	scaled 0.0001					
Comp CO per cent						
Between	15.72	4	3.93	F	5.09**	Grand
Within	338.93	439	0.77	Within SD	0.88	average:
Total	354.65	443	0.80	Total SD	0.89	1.74
	not scaled					
Comp NO_x ppm						
Between	502.40	4	125.60	F	10.37**	Grand
Within	5314.17	439	12.11	Within SD	348	average:
Total	5816.57	443	13.13	Total SD	362	1122
	scaled 0.0001					
Comp NO_xC ppm						
Between	198.68	4	49.67	F	4.32**	Grand
Within	5053.14	439	11.51	Within SD	339	average:
Total	5251.82	443	11.86	Total SD	344	1079
	scaled 0.0001					

F 5% 2.392 1% 3.363

Note: Denver data not included

TABLE D-10 (cont.)

Between the 5 cities for the same make Chevrolet

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	56.20	4	14.05	F	6.38**	Grand
	Within	966.24	439	2.20	Within SD	1.48	average:
	Total	1022.44	443	2.31	Total SD	1.52	3.03

Mass CO	Between	8413.14	4	2103.29	F	5.07**	Grand
	Within	181973.37	439	414.52	Within SD	20.36	average:
	Total	190386.52	443	429.77	Total SD	20.73	4.01

Mass NO_x	Between	78.15	4	19.54	F	9.40**	Grand
	Within	912.45	439	2.08	Within SD	1.44	average:
	Total	990.60	443	2.24	Total SD	1.50	4.25

Mass NO_xC	Between	29.69	4	7.42	F	3.83**	Grand
	Within	851.72	439	1.94	Within SD	1.39	average:
	Total	881.40	443	1.99	Total SD	1.41	4.09

F 5% 2.392 1% 3.363:

Note: Denver Data not included

TABLE D-11

Between the 5 cities for the same make Pontiac

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Comp HC ppm	Between	6.85	4	1.71	F	1.13	Grand
	Within	188.64	124	1.52	Within SD	123	average:
	Total	195.49	128	1.53	Total SD	124	206
	scaled 0.0001						
Comp CO per cent	Between	8.44	4	2.11	F	2.94*	Grand
	Within	89.05	124	0.72	Within SD	0.85	average:
	Total	97.49	128	0.76	Total SD	0.87	1.26
	not scaled						
Comp NO_x ppm	Between	103.88	4	25.97	F	2.71*	Grand
	Within	1190.35	124	9.60	Within SD	3 10	average:
	Total	(294.23	128	10.11	Total SD	318	988
	scaled 0.0001						
Comp NO_xC ppm	Between	66.23	4	16.56	F	1,94	Grand
	Within	1058,95	124	8.54	Within SD	292	average:
	Total	1125,18	128	8.79	Total SD	296	952
	scaled 0.0001						

F 5% 2.445 1% 3.474

Note: Denver data not included

TABLE D-11 (cont.)

Between the 5 cities for the same make Pontiac

Mass HC g/mile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	11.95	4	2.99	F	1.19	Grand
Within	310.01	124	2.50	Within SD	1.58	average:
Total	321.96	128	2.52	Total SD	1.59	2.73

Mass CO

Between	5022.40	4	1255.60	F	2.71 *	Grand
Within	57358.29	124	462.57	Within SD	21.51	average:
Total	62380.69	128	487.35	Total SD	22.08	31.35

Mass NO_x

Between	16.38	4	4.09	F	2.32	Grand
Within	219.05	124	1.77	Within SD	1.33	average:
Total	235.43	128	1.84	Total SD	1.36	4.05

Mass NO_xC

Between	10.40	4	2.60	F	1.63	Grand
Within	198.04	124	1.60	Within SD	1.26	average:
Total	208.44	128	1.63	Total SD	1.28	3.90

F 5% 2.445 1% 3.474

Note: Denver Data not included

TABLE D-12

Between the 5 cities for the same make Oldsmobile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	0.37	4	0.09	F	0.06	Grand
Within	145.81	106	1.37	Within SD	117	average:
Total	146.18	110	1.33	Total SD	115	172

Comp HC ppm — scaled 0.0001

Between	8.91	4	2.23	F	3.39 *	Grand
Within	69.64	106	0.66	Within SD	0.81	average:
Total	78.55	110	0.71	Total SD	0.85	1.33

Comp CO per cent — not scaled

Between	178.94	4	44.74	F	4.77 **	Grand
Within	994.10	106	9.38	Within SD	306	average:
Total	1173.04	110	10.66	Total SD	327	949

Comp NO_x ppm — scaled 0.0001

Between	112.90	4	28.22	F	3.31 *	Grand
Within	903.77	106	8.53	Within SD	292	average:
Total	1016.67	110	9.24	Total SD	304	913

Comp NO_x C ppm — scaled 0.0001

F 5% 2.458 1% 3.502

Note: Denver data not included

TABLE D-12 (cont.)

Between the 5 cities for the same make Oldsmobile

Mass HC g/mile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	0.76	4	0.19	F	0.09	Grand
Within	219.21	106	2.07	Within SD	1.44	average:
Total	219.97	110	2.00	Total SD	1.41	2.29

Mass CO

Between	6266.94	4	1566.74	F	4.00**	Grand
Within	41493.25	106	391.45	Within SD	19.78	average:
Total	47760.19	110	434.18	Total SD	20.84	33.54

Mass NO_x

Between	33.56	4	8.39	F	4.62**	Grand
Within	192.66	106	1.82	Within SD	1.35	average:
Total	226.22	110	2.06	Total SD	1.43	3.98

Mass NO_xC

Between	20.78	4	5.20	F	3.17*	Grand
Within	173.92	106	1.64	Within SD	1.28	average:
Total	194.70	110	1.77	Total SD	1.33	3.82

F 5% 2.458 1% 3.502

Note: Denver Data not included

TABLE D-13

Between the 5 cities for the same make Buick

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Comp HC ppm	Between	7.69	4	1.92	F	7.50**	Grand
	Within	28.73	112	0.26	Within SD	51	average:
	Total	36.42	116	0.31	Total SD	56	194
	scaled 0.0001						

Comp CO per cent	Between	14.81	4	3.70	F	4.64**	Grand
	Within	89.43	112	0.80	Within SD	0.89	average:
	Total	104.24	116	0.90	Total SD	0.95	1.76
	not scaled						

Comp NO_x ppm	Between	221.75	4	55.44	F	5.94**	Grand
	Within	1044.23	112	9.32	Within SD	305	average:
	Total	1265.97	116	10.91	Total SD	330	1253
	scaled 0.0001						

Comp NO_x C ppm	Between	167.20	4	41.80	F	4.50**	Grand
	Within	1040.79	112	9.29	Within SD	305	average:
	Total	1207.99	116	10,41	Total SD	323	1218
	scaled 0.0001						

F 5% 2.453 1% 3.492

Note: Denver data not included

TABLE D-13 (cont.)

Between the 5 cities for the same make Buick

Mass HC g/mile

Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	15.11	4	3.78	F	8.63 **	Grand
Within	49.00	112	0.44	Within SD	0.66	average:
Total	64.11	116	0.55	Total SD	0.74	2.65

Mass CO

Between	9579.09	4	2394.77	F	5.34 **	Grand
Within	50231.21	112	448.49	Within SD	21.17	average:
Total	59810.30	116	515.61	Total SD	22.71	44.69

Mass NO_x

Between	37.87	4	9.47	F	4.13 **	Grand
Within	256.46	112	2.29	Within SD	1.51	average:
Total	294.33	116	2.54	Total SD	1.59	5.34

Mass NO_xC

Between	28.67	4	7.17	F	3.16 *	Grand
Within	253.72	112	2.27	Within SD	1.51	average:
Total	282.39	116	2.43	Total SD	1.56	5.19

F 5% 2.453 1% 3.492

Note: Denver Data not included

TABLE D-14

Between the 5 cities for the same make Cadillac

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units	
Comp HC ppm	Between	1.90	4	0.47	F 1.21	Grand
	Within	12.18	31	0.39	Within SD 63	average:
	Total	14.08	35	0.40	Total SD 63	160
		scaled 0.0001				

Comp CO per cent	Between	1.14	4	0.28	F 1.26	Grand
	Within	7.00	31	0.23	Within SD 0.48	average:
	Total	8.14	35	0.23	Total SD 0.48	1,35
		not scaled				

Comp NO_x ppm	Between	38.22	4	9.55	F 0.68	Grand
	Within	433.80	31	13.99	Within SD 374	average:
	Total	472.02	35	13.49	Total SD 367	1444
		scaled 0.0001				

Comp NO_x C ppm	Between	39.62	4	9.91	F 0.74	Grand
	Within	415.48	31	13.40	Within SD 366	average:
	Total	455.11	35	13.00	Total SD 361	1398
		scaled 0.0001				

F 5% 2.679 1% 3.993

Note: Denver data not included

TABLE D-14 (cont)

Between the 5 cities for the same make Cadillac

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	4.22	4	1.06	F	1.20	Grand
	Within	27.20	31	0.88	Within SD	0.94	average:
	Total	31.42	35	0.90	Total SD	0.95	2.38
Mass CO	Between	912.39	4	228.10	F	1.30	Grand
	Within	5456.33	31	176.01	Within SD	13.27	average:
	Total	6368.73	35	181.96	Total SD	13.49	37.80
Mass NO_x	Between	7.75	4	1.94	F	0.65	Grand
	Within	92.53	31	2.98	Within SD	1.73	average:
	Total	100.28	35	2.87	Total SD	1.69	6.65
Mass NO_x C	Between	8.11	4	2.03	F	0.71	Grand
	Within	88.38	31	2.85	Within SD	1.69	average:
	Total	96.49	35	2.76	Total SD	1.66	6.44

F 5% 2.679 1% 3.993:

Note: Denver Data not included

TABLE D-15

Between the 5 cities for the same make All GM Makes

	Cities	Sum of Squares	D.F	Mean Square	Non-scaled units		
Comp HC ppm	Between	41.84	4	10.46	F	6.54**	Grand
	Within	1330.06	832	1.60	Within SD	1.26	average:
	Total	1371.89	836	1.64	Total SD	1.28	2.22
		scaled	0.0001				
Comp CO per cent	Between	34.84	4	8.71	F	11.24**	Grand
	Within	644.74	832	0.77	Within SD	0.88	average:
	Total	679.59	836	0.81	Total SD	0.90	1.60
		not scaled					
Comp NO_x ppm	Between	938.88	4	234.72	F	19.09**	Grand
	Within	10229.91	832	12.30	Within SD	3.51	average:
	Total	11168.79	836	13.36	Total SD	3.66	1111
		scaled	0.0001				
Comp NO_xC ppm	Between	498.46	4	124.61	F	10.74**	Grand
	Within	9658.03	832	11.61	Within SD	3.41	average:
	Total	10156.49	836	12.15	Total SD	3.49	1070
		scaled	0.0001				

F 5% 2.383 1% 3.342

Note: Denver data not included

TABLE D-15 (cont.)

Between the 5 cities for the same make All GM Makes

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	65.35	4	16.34	F	8.20 **	Grand
	Within	1657.48	832	1.99	Within SD	1.41	average:
	Total	1722.83	836	2.06	Total SD	1.44	2.80

Mass CO	Between	20774.46	4	5193.61	F	11.98 **	Grand
	Within	360798.43	832	433.65	Within SD	20.82	average:
	Total	381572.89	836	456.43	Total SD	21.36	38.38

Mass NO_x	Between	149.43	4	37.36	F	15.28 **	Grand
	Within	2034.00	832	2.44	Within SD	1.56	average:
	Total	2183.43	836	2.61	Total SD	1.62	4.44

Mass NO_x C	Between	80.96	4	20.24	F	8.81 **	Grand
	Within	1911.38	832	2.30	Within SD	1.52	average:
	Total	1992.34	836	2.38	Total SD	1.54	4.28

F 5% 2.383 1% 3.342

Note: Denver Data not included

TABLE D-16

Between the 5 cities for the same make Volkswagen.

	Cities	Sum of Squares	D.F	Mean Square	Non-scaled units	
Comp HC ppm	Between	17.31	4	4.33	F 2.47 *	Grand
	Within	168.16	96	1.75	Within SD 132	average:
	Total	185.47	100	1.85	Total SD 136	325
		scaled 0.0001				

Comp CO per cent	Between	3.44	4	0.86	F 1.93	Grand
	Within	42.88	96	0.45	Within SD 0.67	average:
	Total	46.32	100	0.46	Total SD 0.68	1.45
		not scaled				

Comp NO_x ppm	Between	321.86	4	80.46	F 6.06 **	Grand
	Within	1275.16	96	13.28	Within SD 364	average:
	Total	1597.01	100	15.97	Total SD 400	1687
		scaled 0.0001				

Comp NO_x C ppm	Between	80.38	4	20.09	F 1.43	Grand
	Within	1345.92	96	14.02	Within SD 374	average:
	Total	1426.29	100	14.26	Total SD 378	1614
		scaled 0.0001				

F 5% 2.467 1% 3.522

Note: Denver data not included

TABLE D-16 (cont.)

Between the 5 cities for the same make Volkswagen

	Cities	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	9.58	4	2.40	F	1.89	Grand
	Within	121.80	96	1.27	Within SD	1.13	average:
	Total	131.38	100	1.31	Total SD	1.15	2.52
Mass CO	Between	580.79	4	145.20	F	1.74	Grand
	Within	8011.57	96	83.45	Within SD	9.14	average:
	Total	8592.36	100	85.92	Total SD	9.27	20.90
Mass NO_x	Between	22.69	4	5.67	F	5.11 **	Grand
	Within	106.50	96	1.11	Within SD	1.05	average:
	Total	129.19	100	1.29	Total SD	1.14	4.06
Mass NO_xC	Between	6.20	4	1.55	F	1.39	Grand
	Within	107.14	96	1.12	Within SD	1.06	average:
	Total	113.34	100	1.13	Total SD	1.06	3.88

F 5% 2.467 1% 3.522

Note: Denver Data not included

TABLE D-17

Between the 5 cities for all vehicles

Comp. HC ppm

CITIES	Sum of Squares	D.F	Mean Square	Non-scaled units		
Between	75.26	4	18.82	F	9.94**	Grand
Within	3298.35	1744	1.89	Within SD	138	average:
Total	3373.61	1748	1.93	Total SD	139	240

scaled 0.0001

Comp. CO per cent

Between	50.84	4	12.71	F	15.20**	Grand
Within	1457.78	1744	0.836	Within SD	0.91	average:
Total	1508.62	1748	0.863	Total SD	0.93	1.56

not scaled

Comp NO_x ppm

Between	2014.77	4	503.69	F	20.82**	Grand
Within	42196.61	1744	24.20	Within SD	492	average:
Total	44211.38	1748	25.29	Total SD	503	1320

scaled 0.0001

Comp NOX_c ppm

Between	968.66	4	242.16	F	10.87**	Grand
Within	38864.19	1744	22.28	Within SD	472	average:
Total	39832.85	1748	22.79	Total SD	477	1273

scaled 0.0001 Checked

F 5% 2.377 1% 3.330

TABLE D-17 (cont.)

Between the 5 cities for all vehicles

	CITIES	Sum of Squares	D.F	Mean Square	Non-scaled units	
Mass HC	Between	100.45	4	25.11	F 10.65**	Grand
	Within	4111.04	1744	2.36	Within SD 1.54	average:
	Total	4211.49	1748	2.41	Total SD 1.55	2.84
Mass CO	Between	29524.73	4	7381.18	F 15.86**	Grand
	Within	811836.64	1744	465.50	Within SD 21.58	average:
	Total	841361.37	1748	481.33	Total SD 21.94	35.56
Mass NO_X	Between	287.21	4	71.80	F 23.40**	Grand
	Within	5351.69	1744	3.07	Within SD 1.75	average:
	Total	5638.91	1748	3.23	Total SD 1.80	4.85
Mass NOX_6	Between	119.67	4	29.92	F 10.53**	Grand
	Within	4954.12	1744	2.84	Within SD 1.69	average:
	Total	5073.79	1748	2.90	Total SD 1.70	4.68

F 5% 2.377 1% 3.330

TABLE D-18

Between Five Cities and Denver
(All Vehicles)

TABLE D-18

5-cities Total vs Denver (All vehicles)

Comp HC ppm

CITIES	Sum of Squares	DF	Mean Square	Non-scaled units		
Between	421.96	1	421.96	F	177.7**	Grand
Within	4984.75	2099	2.37	Within SD	154	average:
Total	5406.71	2100	2.57	Total SD	160	260

scaled 0.0001

Comp CO percent

Between	502.86	1	502.86	F	529.8**	Grand
Within	1992.33	2099	0.95	Within SD	0.97	average:
Total	2495.19	2100	1.19	Total SD	1.09	1.78

not scaled

Comp NO_x ppm

Between	1207.53	1	1207.53	F	48.5**	Grand
Within	52279.35	2099	24.91	Within SD	499	average:
Total	53486.88	2100	25.47	Total SD	505	1286

Scaled 0.0001

Comp NOX_c ppm

Between	1379.83	1	1379.83	F	61.7**	Grand
Within	46943.14	2099	22.36	Within SD	473	average:
Total	48322.97	2100	23.01	Total SD	480	1237

Scaled 0.0001

F 5% 3.846 1% 6.647

TABLE D-18 (cont.)

5-cities total vs Denver (All vehicles)

	CITIES	Sum of Squares	D.F	Mean Square	Non-scaled units		
HC mass	Between	582.56	1	582.56	F	197.1 **	Grand
	Within	6204.52	2099	2.96	Within SD	1.72	average:
	Total	6787.08	2100	3.23	Total SD	1.80	3.08
CO mass	Between	256390.99	1	256390.99	F	471.2 **	Grand
	Within	1142136.82	2099	544.13	Within SD	23.33	average:
	Total	1398527.81	2100	665.97	Total SD	25.81	40.52
NO_x mass	Between	187.54	1	187.54	F	60.1 **	Grand
	Within	6550.88	2099	3.12	Within SD	1.77	average:
	Total	6738.42	2100	3.21	Total SD	1.79	4.72
NOX_c mass	Between	211.71	1	211.71	F	75.9 **	Grand
	Within	5852.04	2099	2.79	Within SD	1.67	average:
	Total	6063.75	2100	2.89	Total SD	1.70	4.54

F 5% 3.846 1% 6.647

TABLE D-19

Between Makes In Five Cities
[Denver Excluded]
(All Vehicles)

TABLE D-19

Between makes in the 5 cities combined (all vehicles)

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units	
Comp HC ppm	Between	201.74	8	25.22	F 13.85**	Grand
	Within	3169.16	1740	1.82	Within SD 135	average:
	Total	3370.90	1748	1.93	Total SD 139	240
		scaled 0.0001				

Comp CO per cent	Between	76.85	8	9.61	F 11.72**	Grand
	Within	1426.32	1740	0.82	Within SD 0.91	average:
	Total	1503.17	1748	0.86	Total SD 0.93	1.56
		not scaled				

Comp NO_x ppm	Between	10064.39	8	1258.05	F 64.19**	Grand
	Within	34101.26	1740	19.60	Within SD 443	average:
	Total	44165.64	1748	25.27	Total SD 503	1320
		scaled 0.0001				

Comp NO_xC ppm	Between	928528	8	1160.66	F 66.07**	Grand
	Within	30566.97	1740	17.57	Within SD 419	average:
	Total	39852.25	1748	22.80	Total SD 477	1272
		scaled 0.0001				

F 5% 1.944 1% 2.522

TABLE D-19 (cont.)

Between makes in the 5 cities combined (all vehicles)

	Makes	Sum of Squares	DF	Mean Square	Non-scaled units		
Mass HC g/mile	Between	99.04	8	12.38	F	5.23**	Grand
	Within	4116.12	1740	2.37	Within SD	1.54	average:
	Total	4215.15	1748	2.41	Total SD	1.55	2.84
Mass CO	Between	71990.35	8	8998.79	F	20.34**	Grand
	Within	769637.43	1740	442.32	Within SD	21.03	average:
	Total	841627.78	1748	481.48	Total SD	21.94	35.55
Mass NO_x	Between	1053.06	8	131.63	F	49.82**	Grand
	Within	4597.79	1740	2.64	Within SD	1.63	average:
	Total	5650.85	1748	3.23	Total SD	1.80	4.85
Mass NO_xC	Between	974.10	8	12176	F	51.58**	Grand
	Within	4107.77	1740	2.36	Within SD	1.54	average:
	Total	5081.87	1748	2.91	Total SD	1.71	4.68

F 5% 1.944 1% 2.522

TABLES D-20 THRU D-27

Car To Car Variability

Car-to-Car Variability

HC, ppm

	Sum of Squares	Df	Mean Square	SD
KC	321.29	343	0.94	97
H	616.34	341	1.81	134
LA	693.00	343	2.02	142
Det	511.46	343	1.49	122
W	911.78	334	2.73	165
Total	3053.97	1704	1.79	134

scaled 0.0001

AMC	73.37	104	0.71	84
Chr	256.70	298	0.86	93
Ford	1336.97	394	3.39	184
Chev	843.30	439	1.92	139
Pont	188.64	124	1.52	123
Olds	145.81	106	1.37	117
Buick	28.73	112	0.26	51
Cad	12.18	31	0.39	63
VW	168.16	96	1.75	132
Total	3053.86	1704	1.79	134

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-20

Car-to-Car Variability

CO_2 per cent

	Sum of Squares	Df	Mean Square	SD
KC	233.79	343	0.68	0.83
H	351.75	341	1.03	1.02
LA	275.46	343	0.80	0.90
Det	319.92	343	0.93	0.97
W	164.92	334	0.49	0.70
Total	1345.84	1704	0.79	0.89

AMC	96.76	104	0.93	0.96
Chr	406.45	298	1.36	1.17
Ford	205.71	394	0.52	0.72
Chev	338.93	439	0.77	0.88
Pont	89.05	124	0.72	0.85
Olds	69.64	106	0.66	0.81
Buick	89.43	112	0.80	0.89
Cad	7.00	31	0.23	0.48
VW	42.88	96	0.45	0.67
Total	1345.85	1704	0.79	0.89

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-21

Car-to-Car Variability

NO_x ppm

	Sum of Squares	Df	Mean Square	SD
KC	6266.18	343	18.27	427
H	6324.92	341	18.55	431
LA	7324.85	343	21.36	462
Det	5662.42	343	16.51	406
W	6035.55	334	18.07	425
Total	31613.92	1704	18.55	431

scaled 0.0001

AMC	2371.15	104	22.80	477
Chr	8863.70	298	29.74	545
Ford	10127.28	394	25.70	507
Chev	5314.17	439	12.11	348
Pont	1190.35	124	9.60	310
Olds	994.10	106	9.38	306
Buick	1044.23	112	9.32	305
Cad	433.80	31	13.99	374
VW	1275.16	96	13.28	364
Total	31613.94	1704	18.55	431

scaled 0.0001

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-22

Car-to-Car Variability

NO_x corr ppm

	Sum of Squares	Df	Mean Square	SD
KC	4493.42	343	13.10	362
H	6820.42	341	20.00	447
LA	6450.97	343	18.81	434
Det	5711.03	343	16.65	408
W	5857.93	334	17.54	419
Total	29333.77	1704	17.21	415

scaled 0.0001

AMC	2208.89	104	21.24	461
Chr	8087.25	298	27.14	521
Ford	9219.57	394	23.40	484
Chev	5053.14	439	11.51	339
Pont	1058.95	124	8.54	292
Olds	903.77	106	8.53	292
Buick	1040.79	112	9.29	305
Cad	415.48	31	13.40	366
VW	1345.92	96	14.02	374
Total	29333.76	1704	17.21	415

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-23

Car-to-Car Variability

HC, g/mile

	Sum of Squares	Df	Mean Square	SD
KC	347.42	343	1.01	1.01
H	804.31	341	2.36	1.54
LA	1009.49	343	2.94	1.72
Det	693.65	343	2.02	1.42
W	1100.81	334	3.30	1.82
Total	3955.68	1704	2.32	1.52

AMC	69.02	104	0.66	0.81
Chr	403.40	298	1.35	1.16
Ford	1789.80	394	4.54	2.13
Chev	966.24	439	2.20	1.48
Pont	310.01	124	2.50	1.58
Olds	219.21	106	2.07	1.44
Buick	49.00	112	0.44	0.66
Cad	27.20	31	0.88	0.94
VW	121.80	96	1.27	1.13
Total	3955.68	1704	2.32	1.52

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-24

Car-to-Car Variability

CO, g/mile

	Sum of Squares	Df	Mean Square	SD
KC	122710.50	343	357.76	18.91
H	201826.88	341	591.87	24.33
LA	145349.39	343	423.76	20.59
Det	166510.83	343	485.45	22.03
W	87194.36	334	261.06	16.16
Total	723591.96	1704	424.64	20.61

AMC	36172.83	104	347.82	18.65
Chr	227189.97	298	762.38	27.61
Ford	115705.14	394	293.67	17.14
Chev	181978.37	439	414.52	20.36
Pont	57358.29	124	462.57	21.51
Olds	4493.25	106	391.45	19.78
Buick	50231.21	112	448.49	21.17
Cad	5456.33	31	176.01	13.27
VW	8011.57	96	83.45	9.14
Total	723591.96	1704	424.64	20.61

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-25

Car-to-Car Variability

NO_x g/mile

	Sum of Squares	Df	Mean Square	SD
KC	865.05	343	2.52	1.59
H	835.44	341	2.45	1.57
LA	987.33	343	2.88	1.70
Det	731.62	343	2.13	1.46
W	827.99	334	2.48	1.57
Total	4247.41	1704	2.49	1.58

AMC	253.20	104	2.43	1.56
Chr	1081.51	298	3.63	1.91
Ford	1133.08	394	2.88	1.70
Chev	912.45	439	2.08	1.44
Pont	219.05	124	1.77	1.33
Olds	192.66	106	1.82	1.35
Buick	256.46	112	2.29	1.51
Cad	92.53	31	2.98	1.73
VW	106.50	96	1.11	1.05
Total	4247.44	1704	2.49	1.58

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-26

Car-to-Car Variability

NO_x corr g/mile

	Sum of Squares	Df	Mean Square	SD
KC	612.37	363	1.79	1.34
H	910.69	341	2.67	1.63
LA	871.52	343	2.54	1.59
Det	741.77	343	2.16	1.47
W	802.09	334	2.40	1.55
Total	3938.44	1704	2.31	1.52

AMC	250.67	104	2.41	1.55
Chr	984.54	298	3.30	1.82
Ford	1030.31	394	2.62	1.62
Chev	851.72	439	1.94	1.39
Pont	198.04	124	1.60	1.26
Olds	173.92	106	1.64	1.28
Buick	253.72	112	2.27	1.51
Cad	88.38	31	2.85	1.69
VW	107.14	96	1.12	1.06
Total	3938.44	1704	2.31	1.52

Based on pooled standard deviations for tests in the same city on the same make.

TABLE D-27

APPENDIX E

KEY MODE TEST DATA TABLES

1. Legend and Interpretation of KEY MODE Test Data Tables.

2. Tables:

	E-1	Kansas City
	E-2	Houston
	E-3	Los Angeles
	E-4	Detroit
	E-5	Denver
	E-6	Washington D.C.

LEGEND AND INTERPRETATION OF KEY MODE TEST DATA TABLES

Key Words	Description
CAR NO	This is the number used to identify each vehicle and the location where test was conducted. The first number denotes the location. 1 = Kansas City, Missouri 2 = Houston, Texas 3 = Los Angeles, California 4 = Detroit, Michigan 5 = Denver, Colorado 6 = Washington D.C.
RUN NO	This is a sequential number assigned to each test in each city.
KEY MODE	Clayton KEY MODE emission results at idle, low cruise, and high cruise in parts per million (volume) for hydrocarbons and nitrogen oxides, and in percent (volume) for carbon monoxide and carbon dioxide.
IRPM	Engine idle speed in revolutions per minute, with a letter indicating neutral (N) or drive (D) gear.
BT	Basic ignition timing in degrees of crankshaft rotation before or after top dead center. Retarded (after) timing indicated by a "-" sign.
DWL	Measure of the time that ignition points are closed in degrees of distributor cam rotation.

TABLE E-1

Kansas City

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120092	001298	48	0.17	13.05	2019	46	560D	3.0	35.0
		116	0.12	12.58	2679	30			
		156	1.86	13.60	232	0			
120100	001310	80	0.14	13.38	3841	45	650N	-3.0	33.0
		145	0.14	13.83	3329	30			
		58	0.40	14.19	176	0			
120222	001460	136	0.44	14.07	3199	44	620D	8.0	36.0
		186	0.23	14.03	3411	30			
		255	6.87	9.98	113	0			
120243	001520	88	0.12	13.74	4395	45	530N	2.0	35.0
		208	2.45	13.24	1963	30			
		477	10.85	7.28	41	0			
120254	001554	64	0.15	13.24	2647	44	525D	3.0	33.0
		140	0.09	14.06	3138	30			
		278	8.81	9.11	104	0			
120256	001556	63	0.16	13.57	2523	45	680N	6.0	31.5
		132	0.42	14.55	1667	31			
		229	7.09	10.22	73	0			
120265	001571	38	0.14	12.80	1837	45	600D	7.0	33.0
		99	0.12	12.92	3050	30			
		219	6.73	10.47	131	0			
120273	001583	43	0.16	12.84	1946	44	530D	3.0	32.5
		101	0.15	12.50	1988	30			
		169	0.55	14.15	261	0			
120280	001599	37	0.17	12.94	2087	44	610D	1.0	36.0
		122	0.12	12.70	3147	30			
		119	0.41	14.39	456	0			
120198	001421	130	0.22	13.67	3534	45	580D	-3.0	30.0
		167	0.15	12.70	3187	31			
		203	2.95	12.43	149	0			
120401	001715	271	2.90	11.87	1311	45	550N	6.0	34.0
		358	1.99	12.29	1302	31			
		236	7.86	8.85	82	0			
120242	001519	133	1.03	14.38	3477	44	550D	3.0	32.0
		172	1.40	14.09	2567	30			
		256	5.58	11.16	116	0			
120274	001584	110	0.37	14.16	3860	44	585D	3.0	31.0
		123	0.17	13.67	2895	30			
		230	6.69	10.58	133	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120173	001397	126	0.45	13.60	2519	46	550D	5.0	29.0
		116	0.18	13.50	1196	30			
		181	3.17	12.78	128	0			
120245	001522	101	0.17	13.47	3473	51	810N	0.0	28.5
		150	0.30	13.81	2499	36			
		115	0.26	13.82	409	0			
120246	001524	122	0.18	13.52	3495	50	790N	-2.0	37.0
		128	0.27	13.59	2133	35			
		156	1.41	13.64	220	0			
120008	001152	186	0.36	13.49	3593	50	540D	5.0	29.0
		210	0.19	13.33	2523	30			
		148	1.54	13.08	167	0			
120044	001231	143	0.40	13.70	3437	37	525D	4.0	30.0
		176	0.59	13.51	2562	23			
		52	0.11	12.78	229	0			
120239	001499	115	0.41	13.80	3130	49	725D	12.0	29.5
		102	0.30	13.91	1992	35			
		214	4.06	12.21	171	0			
120304	001663	94	0.32	10.96	3584	50	710D	8.0	27.0
		92	0.51	10.42	2246	36			
		111	3.26	11.04	58	0			
120156	001375	122	0.85	13.84	3552	46	940N	4.0	46.0
		184	1.30	13.78	2850	29			
		205	5.17	11.41	116	0			
120258	001560	116	0.88	13.76	4013	45	605D	1.0	46.0
		114	0.19	13.93	3900	31			
		136	1.99	13.08	247	0			
120427	001757	138	0.98	13.30	3005	45	700N	-2.5	38.0
		273	0.97	13.47	2450	32			
		327	6.54	9.66	126	0			
120429	001794	119	1.57	13.43	1961	50	900N	-2.5	38.0
		182	1.68	13.22	1119	32			
		218	4.72	11.26	113	0			
120035	001212	85	0.54	13.79	3376	20	950N	10.0	45.0
		104	0.31	14.31	2753	6			
		124	2.95	12.85	111	0			
120067	001267	81	0.36	13.81	4390	45	650D	5.0	46.0
		98	0.25	13.61	3164	31			
		114	1.41	12.84	301	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120070	001270	106	1.23	13.83	3941	44	650D	10.0	35.0
		126	0.86	14.22	3179	30			
		335	10.29	7.93	51	0			
120081	001284	119	1.07	13.88	3999	45	540D	0.0	.
		163	1.81	13.30	2942	30			
		340	10.05	7.33	57	0			
120082	001285	145	0.65	13.96	4169	46	750N	2.5	45.0
		186	0.91	14.04	3282	30			
		191	5.96	10.26	115	0			
120088	001294	86	0.46	13.59	4382	45	490S	6.0	42.0
		103	0.20	13.61	3555	30			
		160	2.11	13.05	197	0			
120097	001307	86	0.67	13.55	3172	46	580D	-2.5	50.5
		123	0.68	13.60	2971	30			
		138	2.43	12.22	257	0			
120117	001327	97	1.03	13.58	3839	45	975N	5.0	45.0
		128	0.77	13.69	3531	30			
		178	3.49	11.12	204	0			
120124	001335	89	0.52	13.77	4328	45	625N	2.5	42.0
		102	0.27	13.99	3780	30			
		137	1.34	13.88	230	0			
120134	001347	153	0.97	13.85	3500	45	570D	3.0	41.5
		188	1.01	13.97	3321	30			
		307	7.70	9.94	108	0			
120136	001349	99	0.40	13.84	4550	45	560D	2.0	41.0
		113	0.48	14.02	4211	31			
		281	8.85	9.25	132	0			
120140	001353	106	1.09	14.06	3744	46	590D	3.0	44.5
		196	4.06	12.41	1223	31			
		336	10.69	7.75	54	0			
120157	001376	97	0.48	13.66	4586	45	720N	10.0	44.0
		98	0.22	13.45	3804	29			
		184	2.86	12.68	177	0			
120206	001437	89	0.56	13.60	4304	45	850N	2.5	44.0
		108	0.37	13.60	3993	30			
		153	2.69	12.59	208	0			
120237	001482	79	0.37	13.71	3309	45	585N	2.5	47.5
		119	0.38	13.81	3029	30			
		180	2.40	12.84	156	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120006	001144	146	0.19	13.74	3046	50	560D	3.0	28.5
		148	0.15	13.70	3014	30			
		130	0.90	13.65	182	0			
120012	001161	119	0.36	13.15	2880	44	560D	6.0	28.0
		155	0.22	12.96	2653	29			
		103	1.12	12.95	147	0			
120013	001165	91	0.40	13.32	2179	50	560D	0.0	33.0
		170	0.26	12.91	2989	30			
		124	0.95	12.71	187	0			
120014	001162	98	0.36	13.29	2787	47	625D	1.0	30.2
		134	0.17	13.01	3556	34			
		122	1.49	12.20	117	0			
120015	001168	83	0.20	13.50	2380	44	610D	6.0	31.5
		141	0.12	13.32	2781	29			
		135	0.93	13.62	234	0			
120104	001314	129	0.30	14.01	3440	50	625D	0.0	34.0
		186	0.18	13.57	3792	36			
		68	0.12	13.49	222	0			
120110	001320	130	0.61	14.02	3257	46	800N	0.0	36.0
		122	0.29	13.74	2256	30			
		109	1.63	13.64	207	0			
120111	001321	88	0.45	14.23	2554	50	750N	-2.5	30.0
		138	0.23	13.80	3486	34			
		258	8.69	8.31	82	0			
120112	001322	137	0.57	14.06	3088	45	780N	0.0	31.0
		177	0.36	13.78	2835	29			
		120	0.38	14.04	283	0			
120115	001325	70	0.33	14.28	1955	45	570N	-5.0	35.5
		112	0.16	13.46	2282	29			
		126	1.69	13.58	151	0			
120128	001339	109	0.36	13.98	3106	45	700N	7.5	27.0
		162	0.56	13.80	2774	30			
		323	7.49	9.82	78	0			
120158	001377	130	1.46	13.85	1714	50	650N	0.0	32.0
		201	0.57	13.89	2739	35			
		132	0.69	13.35	183	0			
120179	001403	120	0.45	14.01	2939	50	780N	6.0	31.0
		157	0.15	13.47	3198	34			
		291	5.51	11.25	120	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120200	001423	97	0.42	13.85	2456	49	700N	2.0	30.0
		157	0.36	13.52	2924	35			
		120	1.28	13.05	136	0			
120238	001492	102	0.46	14.00	2437	50	670N	-1.0	31.5
		141	0.25	13.32	3113	35			
		133	1.77	13.05	147	0			
120286	001624	111	0.54	14.10	2466	49	725N	-2.5	33.0
		148	0.26	13.65	2654	35			
		135	1.97	12.79	164	0			
120301	001660	154	0.61	14.09	3276	45	780N	2.0	25.5
		176	0.20	13.93	2856	30			
		278	3.61	12.65	125	0			
120310	001673	109	0.28	13.73	2241	45	690N	2.0	32.0
		158	0.20	14.00	2214	30			
		311	8.59	9.61	72	0			
120320	001684	156	0.41	13.92	3336	46	550D	0.0	31.5
		226	0.49	14.06	2529	31			
		254	5.88	10.71	111	0			
120328	001692	103	0.18	13.57	2878	45	715N	-5.0	37.0
		135	0.14	13.53	2072	30			
		186	4.79	11.51	109	0			
120329	001693	92	0.23	13.44	2462	46	820N	1.0	35.0
		142	0.22	13.22	2115	30			
		171	3.68	12.42	134	0			
120005	001140	39	0.13	12.19	1753	50	585D	4.0	30.0
		82	0.11	12.16	2163	30			
		100	2.26	12.49	118	0			
120007	001151	119	0.44	13.54	3609	48	550D	6.0	35.0
		114	0.08	13.20	2844	29			
		110	1.19	12.95	112	0			
120011	001160	128	0.47	13.20	3576	50	670D	3.0	28.0
		108	0.12	12.54	2606	34			
		272	4.31	11.26	110	0			
120170	001390	132	1.03	13.78	3281	49	700N	-1.0	35.0
		110	0.16	13.63	3047	35			
		193	8.35	9.47	84	0			
120176	001400	108	0.85	13.89	2732	50	635N	2.5	29.0
		79	0.16	13.69	1992	36			
		163	4.30	11.94	113	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120180	001404	47	0.39	13.69	1590	51	700N	3.0	36.0
		34	0.18	13.24	779	35			
		229	7.98	9.63	67	0			
120216	001454	122	1.21	13.48	3685	49	650N	0.0	35.0
		81	0.13	12.93	3508	34			
		152	3.97	11.92	119	0			
120247	001532	156	3.09	12.91	1594	50	1350N	7.5	27.0
		129	1.06	13.71	1902	36			
		213	3.24	11.71	288	0			
120248	001542	85	0.36	13.43	3371	50	550N	4.0	28.5
		76	0.14	12.77	2209	35			
		237	4.81	10.76	88	0			
120253	001553	106	0.65	13.65	3002	50	890N	5.0	36.0
		92	0.19	12.84	2045	35			
		197	5.80	10.61	95	0			
120293	001640	127	1.24	13.87	2997	50	580D	6.0	35.0
		134	1.32	13.00	1823	35			
		193	5.29	11.05	104	0			
120315	001679	149	2.09	13.35	2541	49	570D	4.0	33.0
		130	0.26	14.14	2995	36			
		244	8.17	9.50	70	0			
120244	001521	122	1.38	13.78	2782	49	650N	2.0	34.0
		132	0.58	13.79	2980	36			
		119	1.79	13.57	135	0			
120269	001577	115	0.42	14.38	3222	50	700N	-1.5	36.0
		107	0.25	13.84	2930	36			
		172	6.33	10.69	111	0			
120426	001771	157	1.45	12.28	2131	50	550D	-5.0	30.0
		160	0.42	12.52	1902	35			
		201	4.26	9.83	82	0			
120235	001477	244	1.73	13.33	2518	45	1200N	0.0	28.0
		227	0.87	12.85	1440	30			
		265	7.28	9.58	68	0			
120137	001350	206	2.10	13.50	1985	49	575D	1.0	30.5
		233	2.04	13.45	1736	35			
		316	8.25	9.36	79	0			
120223	001461	120	1.43	13.39	2634	51	650N	5.0	31.0
		177	2.07	13.40	1667	35			
		337	6.32	10.39	76	0			

KANSAS CITY — 1970 VEHICLES — KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	IRPM	BT	DWL
120438	001813	177	0.58	13.38	2256	49	925N	4.0	30.0
		192	0.14	12.62	1104	34			
		891	3.31	11.03	66	0			
120422	001761	125	2.22	11.14	1850	50	650D	-4.0	30.0
		110	0.37	11.91	1839	35			
		290	6.85	6.22	69	0			
120026	001196	264	0.95	13.87	2588	40	830N	-1.0	39.8
		292	0.69	13.99	2283	30			
		183	4.11	12.35	118	0			
120409	001798	182	0.18	12.93	1882	45	750N	-6.0	40.0
		242	0.24	13.18	843	31			
		374	3.60	11.37	85	0			
120435	001721	204	0.17	13.23	4021	45	750N	6.0	34.0
		162	0.12	10.85	939	31			
		209	4.23	11.27	88	0			
120436	001804	130	0.15	11.94	1814	50	650D	-6.0	40.0
		140	0.17	12.06	772	32			
		79	0.17	9.07	164	0			
120129	001340	180	0.14	12.17	3755	39	620D	1.0	41.0
		224	0.15	12.62	2424	24			
		158	1.19	14.41	282	0			
120252	001552	153	0.13	13.55	4300	45	710N	10.0	36.0
		190	0.33	14.20	2713	31			
		179	6.52	10.77	120	0			
120132	001344	125	0.15	12.24	3133	38	640D	1.0	40.0
		168	0.16	12.70	1979	24			
		118	0.86	14.24	337	0			
120159	001382	150	0.19	12.12	2356	38	525D	3.0	34.0
		197	0.12	13.06	1749	23			
		538	7.57	10.03	112	0			
120181	001405	152	0.03	12.70	4378	39	800D	6.0	35.0
		215	0.13	12.85	2535	24			
		313	0.21	14.09	1460	0			
120191	001414	123	0.15	12.71	4026	39	570D	6.0	36.6
		171	0.12	13.18	2829	25			
		208	3.67	12.15	144	0			
120220	001431	153	0.15	13.09	2821	39	570D	4.0	39.0
		195	0.15	13.70	1743	25			
		239	6.03	10.66	132	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120250	001550	179	0.13	13.87	4170	38	750N	12.0	35.0
		221	0.61	14.39	1615	25			
		173	6.36	10.95	110	0			
120267	001575	182	0.14	13.50	3498	38	600D	4.0	44.0
		173	0.13	13.14	1461	25			
		165	2.66	13.23	159	0			
120017	001163	155	0.26	13.14	2821	50	700D	5.0	28.0
		122	0.46	13.34	1048	30			
		136	0.36	13.61	404	0			
120019	001164	170	0.18	12.94	3715	50	585D	0.0	31.0
		166	0.31	12.82	1921	30			
		185	2.38	12.63	150	0			
120047	001239	219	0.18	13.13	4428	43	630D	4.0	31.0
		258	0.34	13.31	2707	28			
		255	1.84	13.25	223	0			
120091	001297	190	0.17	13.25	4414	51	575D	8.0	32.0
		211	0.44	13.54	2324	35			
		147	1.13	14.03	197	0			
120093	001300	232	0.74	13.74	3070	46	610D	8.0	32.0
		188	0.73	14.02	924	31			
		210	2.67	13.33	175	0			
120114	001324	259	3.43	12.56	1574	50	550D	4.0	30.0
		290	2.51	13.11	1724	35			
		276	3.61	12.56	126	0			
120148	001363	179	0.26	13.87	5046	44	725D	23.0	33.0
		204	0.28	13.89	3935	30			
		322	4.66	11.96	177	0			
120165	001385	128	0.52	14.09	2064	45	550D	6.0	32.0
		93	0.76	13.96	803	30			
		143	1.26	13.99	181	0			
120168	001388	238	0.47	13.76	3912	44	500D	.	31.0
		215	0.30	13.79	2113	30			
		122	0.21	13.93	196	0			
120172	001396	144	0.28	14.02	2059	46	600N	4.0	35.0
		129	0.26	13.96	1067	31			
		87	0.99	14.21	137	0			
120177	001401	231	0.54	13.80	3803	45	550D	8.0	27.0
		255	0.30	13.87	2580	31			
		287	4.74	11.94	122	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120183	001407	142	0.16	12.93	3370	51	600D	6.0	33.5
		169	0.23	13.18	2042	36			
		127	0.42	13.92	222	0			
120185	001409	83	0.23	13.50	2022	51	500D	6.0	28.0
		59	0.23	13.77	812	34			
		171	0.99	14.10	168	0			
120186	001372	162	0.73	13.25	1746	45	600D	6.0	32.0
		86	0.50	13.70	793	30			
		182	1.91	13.54	190	0			
120202	001425	218	0.25	13.31	4371	45	560D	6.0	20.0
		237	0.19	13.17	2629	30			
		154	0.16	13.47	247	0			
120277	001591	147	0.32	13.78	2347	45	690D	4.0	33.0
		117	0.23	13.98	783	30			
		138	4.69	12.02	86	0			
120283	001607	192	0.23	13.64	3783	46	550D	4.0	31.0
		134	0.26	13.82	1304	31			
		292	7.60	10.20	90	0			
120033	001206	84	0.24	13.03	2201	47	590D	-6.0	32.0
		150	0.09	13.38	3145	33			
		223	6.60	10.59	117	0			
120079	001282	62	0.22	13.64	3143	51	540D	2.0	34.0
		159	0.73	13.27	3002	35			
		158	3.88	12.47	176	0			
120086	001290	88	0.23	13.74	3341	51	525D	4.0	.
		163	0.35	13.91	3589	35			
		116	0.62	14.36	293	0			
120147	001360	175	1.19	13.74	2046	44	650D	0.0	27.0
		192	1.00	13.92	1195	30			
		158	1.91	13.69	238	0			
120155	001374	113	0.28	14.19	2951	50	600D	6.0	32.0
		183	0.35	13.96	3015	34			
		66	0.14	13.25	250	0			
120196	001419	87	0.41	13.19	3382	49	625D	14.0	32.0
		106	0.29	13.39	3414	35			
		203	3.69	12.37	187	0			
120204	001427	213	1.24	13.64	2545	49	480D	3.0	30.5
		318	1.86	13.30	2032	35			
		208	1.94	13.53	263	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120218	001456	204	0.79	13.76	2891	50	610D	10.0	34.0
		310	1.52	11.34	2181	35			
		260	4.29	11.86	150	0			
120224	001462	170	0.43	14.07	3624	50	550D	10.0	35.0
		238	0.58	13.92	3404	35			
		79	0.13	13.36	287	0			
120226	001465	168	0.78	13.78	2762	45	630D	6.0	28.0
		160	0.29	13.87	1362	30			
		141	0.28	13.83	267	0			
120233	001474	156	0.30	13.77	3556	50	535D	10.0	33.5
		223	0.25	13.55	3459	35			
		73	0.14	13.27	236	0			
120263	001569	130	0.68	13.39	2182	50	570D	7.0	33.0
		260	0.57	13.85	2749	35			
		84	0.18	13.75	363	0			
120268	001576	117	0.23	13.47	2987	51	530D	6.0	29.5
		182	0.23	13.53	3304	35			
		260	8.06	9.85	96	0			
120270	001578	102	0.20	13.84	2691	50	500D	9.0	28.0
		171	0.34	13.54	2652	35			
		134	0.57	13.63	242	0			
120271	001579	91	0.28	13.89	2553	51	550D	8.0	32.0
		167	0.28	13.93	2423	35			
		271	7.96	9.74	106	0			
120272	001580	166	1.19	13.80	2667	50	480D	4.0	31.0
		193	0.80	13.99	2324	35			
		106	0.74	14.17	252	0			
120279	001598	184	0.81	14.28	3868	49	530D	16.0	31.0
		198	0.41	14.14	4050	35			
		171	0.50	14.55	303	0			
120282	001606	119	0.22	13.80	3381	49	550D	5.0	28.0
		173	0.36	13.56	3073	35			
		242	1.63	13.58	298	0			
120297	001656	92	0.21	13.61	1911	50	510D	6.0	53.0
		164	0.28	13.90	2529	35			
		102	0.20	13.41	272	0			
120300	001659	126	0.54	13.71	2521	50	550D	8.0	35.0
		187	0.45	13.75	3012	36			
		99	0.19	13.78	297	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120182	001406	136	0.34	12.76	2876	51	590D	10.0	18.0
		215	0.28	13.14	3790	35			
		140	0.12	12.74	274	0			
120187	001410	143	0.82	13.34	3040	51	630D	8.0	30.0
		183	0.55	13.72	2838	36			
		143	0.56	14.18	257	0			
120190	001413	125	0.54	13.25	3527	50	580D	6.0	25.0
		193	1.08	13.45	3006	35			
		125	0.53	13.91	280	0			
120260	001565	115	0.06	13.43	3854	50	550D	8.0	25.0
		154	0.16	13.45	3416	35			
		110	0.10	13.85	240	0			
120261	001566	164	0.19	13.69	3299	51	560D	6.0	30.5
		168	0.21	13.78	2009	34			
		330	4.37	12.08	119	0			
120275	001585	184	0.74	13.88	3573	51	600D	3.0	30.0
		194	0.48	13.90	2779	36			
		219	3.37	12.72	135	0			
120276	001586	99	0.47	14.05	2768	50	660D	6.0	31.0
		205	0.97	13.88	2279	36			
		89	0.50	14.19	327	0			
120299	001658	124	0.30	14.06	3129	51	600D	8.0	28.0
		166	0.74	14.06	1887	36			
		183	0.16	13.47	335	0			
120313	001676	130	0.18	13.58	2958	51	570D	4.0	34.0
		166	0.21	13.71	2437	35			
		108	0.18	14.00	220	0			
120319	001683	101	0.59	14.14	2333	50	560D	2.0	33.0
		91	0.49	14.10	1329	34			
		173	1.47	13.96	221	0			
120326	001690	100	0.18	13.58	3248	50	500D	1.0	30.0
		151	0.24	13.80	2442	35			
		166	2.06	13.74	129	0			
120118	001329	185	0.87	13.60	3189	50	475D	-8.0	33.0
		157	0.19	13.69	2539	35			
		207	5.92	10.93	105	0			
120296	001654	192	1.01	13.77	2195	50	575D	1.0	28.0
		146	0.25	13.94	1439	35			
		235	2.74	13.28	180	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120306	001667	162	0.98	13.88	2706	49	560D	3.0	26.5
		105	0.17	13.69	1696	34			
		234	3.51	12.94	153	0			
120410	001762	122	0.11	11.62	4264	49	450D	-4.0	36.0
		182	0.13	10.78	2538	34			
		128	0.09	11.28	119	0			
120536	001819	229	0.87	12.37	2050	48	750N	-4.0	38.0
		379	0.74	12.80	2447	34			
		351	2.78	10.12	118	0			
120161	001380	64	0.23	13.31	2092	45	570D	0.5	38.5
		193	0.39	13.71	2855	29			
		142	2.93	13.09	189	0			
120289	001633	119	0.36	13.61	3527	46	650D	-9.0	37.0
		200	0.72	14.01	3029	31			
		82	0.58	14.41	366	0			
120324	001688	86	0.25	13.20	5015	45	510D	-10.0	45.0
		127	0.29	13.78	4398	31			
		342	8.98	9.02	102	0			
120213	001447	27	0.44	12.73	690	45	1150N	16.0	33.5
		61	0.15	9.53	258	29			
		448	0.17	8.89	49	0			
120288	001632	176	0.74	13.50	2942	50	570D	10.0	28.5
		159	0.15	13.07	2282	35			
		381	7.57	10.14	116	0			
120307	001668	169	0.69	13.78	3200	50	600D	0.0	28.5
		148	0.18	13.46	2145	35			
		205	2.38	13.50	266	0			
120325	001689	120	0.71	14.02	2561	51	580D	-2.0	29.0
		110	0.23	14.02	1701	36			
		342	8.79	9.43	57	0			
120423	001753	125	0.66	13.40	2771	50	575D	-6.0	24.0
		122	0.26	13.57	1949	36			
		124	1.38	13.54	163	0			
120535	001818	265	6.81	9.97	261	49	600D	-6.0	30.0
		176	0.20	12.54	1390	33			
		232	0.27	13.11	172	0			
120462	001797	179	0.55	13.05	2145	50	825D	-4.0	30.0
		173	0.52	13.13	546	35			
		212	4.25	11.27	70	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120295	001653	135	0.16	13.38	2557	50	675N	0.0	33.0
		114	0.20	13.86	605	36			
		163	0.24	12.89	62	0			
120408	001722	158	1.99	11.00	1400	49	650D	-8.0	31.0
		93	0.22	10.19	685	33			
		236	3.35	9.52	69	0			
120096	001305	55	0.64	13.18	1763	50	585D	6.0	33.0
		35	0.26	12.46	1030	35			
		97	1.36	11.75	176	0			
120149	001364	80	0.67	12.65	2092	49	600D	5.0	31.0
		69	0.37	12.04	1441	35			
		109	1.41	11.82	204	0			
120194	001417	86	1.52	12.21	1915	50	585D	6.0	30.0
		65	0.71	11.61	1152	34			
		74	0.74	11.67	277	0			
120020	001175	130	0.25	13.96	3910	50	700N	2.0	30.0
		200	0.29	13.94	3064	30			
		265	8.21	9.66	103	0			
120027	001197	110	0.70	14.20	2179	45	500D	6.0	32.0
		343	3.96	12.29	975	30			
		518	10.80	6.91	44	0			
120028	001198	87	0.41	14.25	2410	45	550D	3.0	35.0
		58	0.19	13.26	1274	30			
		342	9.93	8.87	55	0			
120041	001225	56	0.29	13.61	1962	45	600D	4.0	21.0
		84	0.24	12.47	1424	30			
		188	4.72	11.94	106	0			
120051	001247	39	0.22	13.49	2142	44	600D	2.0	34.0
		75	0.21	12.00	1172	31			
		116	0.14	12.02	217	0			
120087	001291	53	0.19	12.84	2805	45	625D	4.0	.
		100	0.17	12.58	2078	31			
		269	4.01	12.21	184	0			
120095	001304	59	0.24	13.73	1767	45	720D	-5.0	35.0
		123	0.19	13.06	1517	31			
		125	3.21	12.73	139	0			
120023	001187	40	0.18	12.32	2323	50	675N	0.0	29.0
		83	0.16	12.79	2733	30			
		63	0.73	10.96	101	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120052	001248	43	0.19	13.00	2089	44	640D	2.0	37.0
		90	0.17	13.19	1589	29			
		182	4.31	11.71	115	0			
120098	001308	100	0.76	14.07	2621	44	600D	5.0	35.0
		74	0.18	13.45	2164	30			
		191	4.23	12.12	126	0			
120151	001370	115	0.36	14.40	2494	44	399N	-5.0	41.0
		189	0.24	14.13	2378	30			
		310	7.60	10.21	118	0			
120201	001424	81	0.14	13.49	3842	45	790N	0.0	38.0
		157	0.61	14.11	2249	31			
		158	6.27	10.57	106	0			
120205	001436	91	0.15	12.79	4914	45	575N	22.0	28.0
		682	0.13	12.56	3304	30			
		7	0.16	9.33	94	0			
120232	001473	74	0.29	13.89	3146	51	700D	2.0	35.0
		84	0.16	13.02	2412	35			
		66	0.13	12.86	208	0			
120290	001634	31	0.20	12.70	1511	50	750D	-3.0	33.0
		101	0.17	14.14	2311	36			
		112	3.69	12.63	90	0			
120308	001669	48	0.26	14.14	1925	45	550D	-1.0	31.0
		65	0.17	13.44	1219	30			
		227	5.43	11.30	92	0			
120430	001792	107	0.15	13.17	1863	48	600D	-4.0	40.0
		151	0.12	12.94	718	32			
		267	5.39	11.16	88	0			
120442	001772	43	0.13	10.24	938	50	550N	-4.0	30.0
		78	0.15	11.03	748	34			
		473	7.62	7.59	55	0			
120457	001773	109	0.14	11.76	3255	49	600N	-4.0	36.0
		180	0.15	11.95	2160	32			
		176	2.71	8.64	79	0			
120460	001793	116	0.15	13.29	1926	50	550D	-4.0	40.0
		123	0.15	13.15	614	31			
		204	2.88	12.78	137	0			
120466	001778	36	0.17	12.95	2123	50	600D	0.0	36.0
		63	0.14	12.06	1276	31			
		243	6.76	9.77	92	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120467	001716	31	0.19	12.81	2219	45	500D	2.0	32.0
		31	0.19	11.37	915	32			
		202	5.78	9.77	102	0			
120468	001735	89	0.52	13.31	2156	46	500D	-6.0	40.0
		85	0.19	12.14	1438	33			
		266	7.60	9.35	93	0			
120530	001808	133	0.63	13.65	1370	51	750N	0.0	40.0
		247	0.82	13.78	441	35			
		240	4.63	11.53	90	0			
120040	001221	127	0.97	13.20	2531	26	650N	2.0	28.0
		125	0.14	13.54	1761	12			
		249	6.74	10.12	84	0			
120042	001227	145	1.22	12.62	2023	42	600D	6.0	30.0
		195	0.30	13.14	2914	28			
		301	3.98	11.80	137	0			
120050	001246	182	1.17	13.44	2768	45	650D	4.0	30.0
		269	0.78	13.80	2182	30			
		323	5.61	11.00	124	0			
120055	001252	144	0.33	13.65	2968	46	650N	3.0	29.0
		156	0.20	13.67	1452	30			
		368	7.70	9.78	72	0			
120058	001255	325	4.67	11.53	118	0	410D	6.0	28.5
		253	0.80	12.81	1977	30			
		181	0.33	13.32	3443	46			
120089	001295	173	0.99	13.93	3097	45	750N	6.0	29.0
		197	0.69	13.80	2044	30			
		1187	9.08	8.33	75	0			
120101	001311	136	0.66	13.15	2675	45	660D	8.0	29.0
		180	0.18	13.72	3143	31			
		275	4.00	12.34	162	0			
120103	001313	127	0.43	13.33	2545	45	575D	8.0	30.0
		192	0.18	13.73	2885	31			
		378	6.70	10.61	109	0			
120131	001343	168	0.68	13.33	3001	45	440D	8.0	29.0
		220	0.26	13.80	3221	31			
		411	9.25	9.14	100	0			
120141	001354	167	0.34	13.71	3705	43	500D	6.0	29.0
		174	0.17	13.51	2252	31			
		424	7.99	9.88	84	0			

KANSAS CITY — 1970 VEHICLES — KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	IRPM	BT	DWL
120160	001379	181	2.10	13.46	1737	44	740D	9.0	29.0
		171	0.79	14.08	1385	30			
		308	3.39	12.70	296	0			
120164	001384	82	0.58	13.72	2982	44	670D	5.0	30.0
		121	0.89	13.79	2410	30			
		153	5.44	11.35	148	0			
120189	001412	195	1.13	13.17	2323	45	625D	8.0	30.0
		268	0.71	13.20	2092	30			
		216	0.47	13.25	424	0			
120210	001443	178	0.61	13.41	2768	44	560D	6.0	30.0
		242	0.23	13.44	2720	30			
		346	4.16	12.05	124	0			
120212	001446	149	0.36	13.46	3437	44	680D	7.0	29.5
		222	0.31	13.70	2911	30			
		308	3.83	12.34	204	0			
120305	001666	83	0.54	13.35	1623	45	630D	5.0	28.0
		80	0.29	13.85	973	31			
		256	3.70	12.58	140	0			
120312	001675	139	1.12	13.78	2325	45	640D	4.0	29.0
		178	0.47	13.93	1846	31			
		203	1.78	13.57	182	0			
120321	001685	152	1.13	12.91	2550	45	580D	12.0	23.0
		241	1.74	12.95	2193	30			
		450	7.03	10.51	104	0			
120034	001209	195	0.37	13.69	4085	50	540D	7.0	28.0
		332	2.55	12.89	1394	30			
		378	7.62	9.60	90	0			
120043	001229	141	0.45	13.82	3982	50	575D	4.0	30.0
		168	0.38	13.91	2905	30			
		206	4.40	10.93	117	0			
120054	001251	184	0.20	14.14	3960	44	550D	6.0	29.0
		243	0.60	14.02	2759	30			
		575	9.45	8.44	70	0			
120062	001261	144	0.23	13.68	3946	50	550D	4.0	30.0
		188	0.28	13.82	3293	35			
		235	5.66	10.60	119	0			
120107	001317	76	0.17	12.78	3191	50	600D	5.0	28.0
		92	0.16	12.72	2301	35			
		259	4.81	11.73	132	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120108	001318	145	0.34	14.18	3901	49	555D	5.0	29.0
		210	0.99	14.07	2875	36			
		235	7.01	10.46	107	0			
120125	001336	139	0.15	13.70	4449	50	625D	6.0	30.0
		187	0.20	13.74	3952	36			
		287	7.27	9.93	121	0			
120175	001399	208	0.84	14.19	3231	49	425D	4.0	32.0
		247	1.01	13.95	2665	35			
		477	10.15	8.01	72	0			
120208	001439	172	0.14	13.46	4349	49	600D	5.0	30.0
		239	0.23	13.44	3601	36			
		336	7.08	9.92	108	0			
120231	001471	140	0.61	14.03	3486	50	650D	4.0	27.5
		190	0.78	14.19	2890	35			
		209	5.29	11.51	124	0			
120262	001568	174	0.39	14.10	3901	47	580D	2.0	29.0
		231	0.47	14.13	3082	35			
		230	4.67	11.56	116	0			
120287	001627	138	0.16	13.69	4322	50	600D	6.0	29.0
		194	0.14	14.09	3679	35			
		168	1.54	13.78	197	0			
120291	001635	100	0.18	12.93	3510	50	550D	7.0	29.0
		123	0.14	12.74	2351	35			
		248	4.19	11.40	96	0			
120292	001639	67	0.16	12.58	2701	49	630D	6.0	28.0
		96	0.15	12.74	1866	35			
		197	1.41	13.76	188	0			
120302	001661	54	0.67	11.14	761	44	500N	.	.
		64	1.82	11.30	86	30			
		743	5.78	8.80	48	0			
120303	001662	214	0.63	14.10	3683	48	530D	5.0	29.0
		232	0.37	14.02	3246	35			
		320	5.56	10.96	99	0			
120002	001134	79	0.12	13.36	3382	50	530D	5.0	29.0
		150	0.31	13.58	2888	30			
		288	5.80	10.61	114	0			
120003	001135	156	0.54	13.82	3027	50	560D	6.0	30.0
		153	0.14	13.01	1750	30			
		99	0.14	13.62	269	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120004	001137	108	0.26	13.73	3166	50	420D	5.0	28.5
		120	0.09	13.31	1937	30			
		166	3.02	12.55	142	0			
120021	001183	212	0.96	13.78	2902	37	510D	4.0	29.0
		213	0.33	14.09	2514	29			
		314	7.37	9.90	83	0			
120022	001185	96	0.20	13.30	3626	48	590D	4.0	28.5
		160	0.45	13.61	3126	33			
		86	0.15	13.40	308	0			
120025	001192	279	5.89	11.00	117	0	660D	10.0	19.5
		69	0.42	14.00	1082	35			
		40	0.19	13.40	1748	50			
120030	001200	234	5.57	11.29	104	0	590D	6.0	27.5
		211	1.58	13.66	2215	32			
		143	0.58	14.29	3527	47			
120031	001201	101	0.14	13.35	4168	50	530D	6.0	29.0
		158	0.35	13.66	3536	30			
		248	4.06	12.08	147	0			
120036	001213	136	0.65	13.85	3672	50	570D	5.0	28.0
		146	0.20	13.69	3844	30			
		258	5.48	11.17	122	0			
120038	001217	267	6.87	7.01	45	0	525D	8.0	28.0
		190	0.45	13.30	3128	34			
		123	0.19	13.50	3960	48			
120039	001220	117	0.24	13.29	3882	50	650D	6.0	30.0
		174	0.49	13.67	3281	30			
		243	4.72	11.70	137	0			
120049	001242	139	0.28	13.07	3346	50	650D	6.0	29.0
		151	0.14	12.57	2593	30			
		248	3.92	12.20	145	0			
120074	001277	138	1.02	13.49	2812	50	570D	6.0	30.0
		200	1.29	13.59	2421	36			
		250	4.86	11.64	191	0			
120076	001279	114	0.22	13.48	3784	45	650D	6.0	27.0
		138	0.18	13.51	2719	30			
		211	4.45	12.07	139	0			
120099	001309	167	1.25	14.06	2896	51	525D	6.0	30.0
		270	2.87	13.11	1651	36			
		243	3.42	12.69	132	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120119	001330	90	0.22	13.61	2539	45	675D	5.0	30.0
		94	0.15	12.70	1389	30			
		147	2.27	13.56	204	0			
120130	001341	105	0.18	13.58	3602	49	490D	3.0	29.0
		178	0.66	13.68	3307	35			
		315	8.03	9.60	99	0			
120133	001346	156	0.73	14.34	3806	50	625D	8.0	26.5
		151	0.23	13.61	3186	35			
		264	6.30	11.05	148	0			
120162	001381	167	0.73	14.19	3451	50	540D	12.0	26.5
		150	0.13	13.64	3226	35			
		441	5.47	11.29	151	0			
120166	001386	101	0.17	13.40	2887	45	620D	4.0	30.0
		147	0.23	13.63	2520	29			
		199	4.59	12.18	128	0			
120207	001438	252	3.55	12.29	1403	44	830D	8.0	31.0
		220	0.97	13.39	2163	30			
		215	3.41	12.35	430	0			
120215	001451	168	1.41	13.61	2927	50	850N	10.0	29.0
		134	0.38	13.63	1690	36			
		221	5.37	10.66	110	0			
120230	001469	115	0.32	13.36	2739	50	550D	4.0	31.0
		214	0.57	13.97	2508	35			
		276	4.78	11.16	114	0			
120234	001476	71	0.22	13.52	1665	44	620D	4.0	31.0
		105	0.95	13.75	872	30			
		261	5.78	11.13	115	0			
120249	001548	139	0.58	13.88	3971	50	600D	8.0	30.0
		208	1.71	13.64	2475	36			
		210	2.88	13.14	179	0			
120001	001130	282	7.04	10.36	84	0	420D	7.0	30.0
		124	0.43	13.71	2869	30			
		124	0.98	13.47	2727	48			
120046	001236	141	1.25	13.49	3014	47	550D	6.0	29.0
		125	0.23	13.46	2944	33			
		281	7.02	10.06	93	0			
120048	001241	128	1.32	13.20	2855	51	550D	10.0	27.0
		139	0.28	13.47	3162	35			
		263	5.70	10.24	116	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120080	001283	101	0.71	13.47	3303	51	600D	8.0	.
		94	0.14	13.37	2961	36			
		231	7.12	9.92	131	0			
120163	001383	98	1.06	13.89	2170	50	575D	8.0	29.5
		65	0.19	13.68	1259	34			
		174	1.53	13.91	184	0			
120227	001466	75	0.75	13.70	2004	50	670D	8.0	30.0
		56	0.24	13.57	1275	36			
		147	2.96	12.39	150	0			
120327	001691	113	0.96	14.09	2946	50	650D	8.0	30.0
		115	0.28	14.54	2466	35			
		268	8.49	9.72	86	0			
120105	001315	123	0.22	13.92	2798	44	550D	4.0	30.0
		217	1.36	13.61	1412	30			
		304	8.47	9.07	86	0			
120192	001415	124	0.22	13.44	3104	50	560D	5.0	29.0
		178	0.42	13.70	2643	36			
		492	8.98	8.04	86	0			
120229	001468	79	0.26	13.90	2843	49	750N	4.0	27.5
		82	0.22	13.79	1803	36			
		160	2.00	13.38	88	0			
120063	001263	87	0.16	14.10	3577	50	600D	6.0	29.0
		111	0.24	14.33	2244	36			
		219	6.85	10.70	88	0			
120113	001323	89	0.16	13.69	3068	49	650D	5.0	27.0
		113	0.17	13.61	1756	35			
		99	0.87	12.70	152	0			
120024	001191	240	2.61	12.89	163	0	630D	7.0	32.2
		172	0.24	13.22	2874	33			
		144	0.20	13.45	4259	49			
120053	001249	128	0.27	12.50	1710	50	540D	-2.0	38.5
		122	0.48	13.21	1976	34			
		271	2.18	13.01	232	0			
120060	001259	109	0.66	13.57	2100	50	650N	-3.0	32.0
		131	1.52	13.42	585	36			
		141	4.26	11.90	97	0			
120077	001280	81	0.28	13.57	3609	50	600D	10.0	31.0
		120	0.20	13.50	3782	35			
		271	0.56	13.71	1826	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120078	001281	93	0.45	13.83	3163	50	560D	6.0	29.0
		136	0.40	13.52	3284	35			
		208	2.62	12.90	246	0			
120123	001334	118	0.21	13.74	3722	50	600D	4.5	32.5
		138	0.26	13.55	2521	35			
		210	2.63	13.24	211	0			
120174	001398	56	0.22	13.06	2023	50	700D	0.0	36.6
		128	0.38	13.90	2410	36			
		192	0.43	14.13	1036	0			
120322	001686	98	0.21	13.20	3508	50	650D	6.0	28.5
		101	0.14	13.06	2288	34			
		248	1.14	13.97	727	0			
120333	001698	54	0.18	12.93	1218	50	685D	7.0	30.0
		59	0.19	13.21	801	36			
		171	0.72	14.12	324	0			
120537	001805	82	0.26	13.46	538	51	750D	-9.0	30.0
		180	1.20	13.18	241	32			
		452	6.83	10.15	90	0			
120009	001158	100	0.26	13.49	3566	50	650D	6.0	30.0
		148	0.23	13.30	3576	30			
		228	0.30	13.90	1552	0			
120084	001288	83	0.13	13.07	3405	49	575D	8.0	.
		153	0.23	13.39	3996	35			
		375	0.22	13.61	1619	0			
120219	001457	84	0.33	13.22	1434	50	660D	2.0	36.0
		205	0.65	13.59	1930	36			
		197	3.59	12.13	157	0			
120298	001657	'31	0.17	13.91	2762	50	720D	6.0	31.0
		189	0.49	14.07	2274	36			
		140	0.56	14.51	375	0			
120311	001674	167	0.18	13.55	4217	50	740D	12.0	24.0
		258	1.47	13.57	2435	34			
		192	1.19	13.99	374	0			
120331	001695	113	0.32	13.55	3149	51	620D	4.5	31.5
		155	0.65	14.07	2095	36			
		166	2.66	13.12	163	0			
120456	001803	137	0.30	12.42	1135	48	650D	-9.0	30.0
		189	0.32	12.50	850	32			
		179	0.47	13.06	215	0			

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CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120032	001203	130	0.11	13.05	2852	47	600D	6.0	29.5
		138	0.11	13.26	1605	29			
		203	3.98	12.33	111	0			
120171	001395	84	0.15	13.06	2654	50	600D	10.0	27.0
		113	0.14	13.68	2064	34			
		230	2.83	12.91	126	0			
120257	001559	121	0.19	13.27	2771	50	620D	6.0	31.0
		208	0.35	13.98	3268	36			
		248	3.66	12.46	157	0			
120285	001622	112	0.16	12.95	3059	50	710D	9.0	29.5
		121	0.15	13.19	2492	35			
		84	0.12	13.15	180	0			
120332	001697	140	0.14	13.17	2859	51	550D	12.0	24.0
		139	0.15	13.38	1663	35			
		623	6.67	9.95	55	0			
120334	001699	118	0.30	13.92	2164	50	915N	10.0	31.0
		148	0.48	13.53	777	35			
		165	0.27	12.08	60	0			
120010	001159	98	0.13	13.18	3606	50	620D	5.0	29.5
		146	0.18	13.76	2625	30			
		263	4.69	11.26	92	0			
120016	001167	104	0.37	13.14	2462	47	580D	9.0	26.5
		172	1.04	12.94	1876	34			
		137	1.34	13.11	164	0			
120018	001169	267	1.68	13.05	1818	49	560D	6.0	14.0
		223	2.98	12.39	868	34			
		308	5.32	11.03	85	0			
120037	001216	97	0.39	13.59	2872	36	625D	4.0	29.0
		171	1.41	13.19	1937	22			
		147	2.33	13.02	137	0			
120085	001289	109	1.08	13.58	2204	51	750D	2.0	.
		166	0.87	13.75	2013	35			
		179	3.92	12.60	125	0			
120090	001296	202	0.37	13.95	3493	51	600D	10.0	27.0
		250	0.70	13.15	1321	36			
		327	5.65	11.23	111	0			
120122	001333	130	0.25	14.04	3005	45	600D	6.0	29.0
		227	1.27	13.69	1815	30			
		274	6.55	10.67	101	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120126	001337	77	0.26	13.50	1697	46	475D	4.0	31.0
		154	1.76	13.16	858	30			
		347	9.59	8.74	69	0			
120143	001356	136	0.80	14.27	1775	49	665N	5.0	29.0
		197	1.95	13.66	1011	36			
		218	6.04	11.05	78	0			
120144	001357	91	0.28	14.08	2036	45	565D	4.0	31.0
		108	0.87	14.11	811	30			
		182	3.63	12.73	121	0			
120228	001467	115	0.25	14.21	2955	49	675D	8.0	26.0
		213	0.67	14.11	2397	36			
		190	2.70	13.50	181	0			
120073	001275	75	0.13	14.00	2604	50	580D	10.0	28.0
		149	0.57	14.38	2177	35			
		271	6.46	10.30	81	0			
120120	001331	70	0.15	13.72	3028	50	600D	9.0	30.0
		161	0.68	14.27	2537	34			
		226	6.00	10.58	96	0			
120142	001355	75	0.34	13.98	2738	49	610D	5.0	30.0
		135	0.81	14.34	2152	36			
		156	4.95	11.61	103	0			
120193	001416	126	0.26	14.01	2936	50	550D	10.0	29.0
		227	1.78	13.39	1814	35			
		299	6.71	9.89	77	0			
120203	001426	96	0.19	13.89	2692	50	550D	16.0	30.5
		114	0.64	14.15	1120	36			
		196	2.32	12.75	108	0			
120211	001444	68	0.15	13.27	2493	50	600D	8.0	31.0
		120	0.13	13.71	2679	35			
		113	0.54	14.15	173	0			
120214	001450	104	0.46	13.94	3217	50	600D	10.0	28.0
		137	0.83	14.01	1696	36			
		156	2.18	12.87	106	0			
120221	001459	163	0.19	13.96	2597	50	510D	8.0	30.5
		216	0.18	14.05	2637	36			
		308	4.02	11.27	118	0			
120236	001481	140	0.28	14.14	2386	49	525D	2.0	33.0
		198	0.25	14.39	2081	36			
		233	4.07	12.47	109	0			

KANSAS CITY

CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120102	001312	38	0.27	13.91	1985	51	500D	4.0	09.0
		93	0.67	14.22	1512	35			
		174	5.97	10.64	87	0			
120127	001338	69	0.27	14.04	3644	50	600D	8.0	30.0
		101	0.39	14.34	2668	35			
		91	0.52	13.19	130	0			
120138	001351	132	2.54	13.28	1017	50	650D	8.0	30.5
		128	2.34	13.40	544	35			
		294	7.00	10.36	93	0			
120169	001389	19	0.14	13.47	1281	49	560D	2.0	30.0
		28	0.25	14.19	827	35			
		31	0.11	13.12	138	0			
120225	001464	51	0.23	13.88	2338	50	600D	6.0	30.0
		93	0.38	13.96	1818	35			
		98	0.40	12.43	154	0			
120094	001301	90	0.19	13.91	3102	50	575D	8.0	31.0
		146	0.24	14.12	2453	35			
		141	0.90	13.76	185	0			
120154	001373	90	0.22	14.32	3302	49	600D	8.0	28.0
		113	0.27	14.28	2362	35			
		139	1.55	13.86	193	0			
120217	001455	42	0.14	12.92	2042	50	625D	4.0	32.0
		95	0.13	13.37	2521	36			
		101	0.58	13.55	215	0			
120278	001592	58	0.17	13.76	2909	49	560D	4.0	29.0
		106	0.19	14.23	2125	35			
		198	4.39	11.98	116	0			
120309	001672	85	0.16	13.80	2282	49	610D	-4.0	30.0
		125	0.16	13.94	1709	35			
		109	0.46	13.81	165	0			
120314	001678	51	0.18	13.66	2716	49	620D	6.0	28.5
		101	0.23	14.22	2508	35			
		237	7.51	10.15	97	0			
120318	001682	66	0.17	13.95	2787	50	660D	0.0	31.5
		125	0.29	14.35	2030	35			
		151	3.05	13.10	159	0			
120109	001319	86	0.36	13.78	267?	50	500D	5.0	32.0
		203	1.94	13.61	1559	35			
		295	6.39	10.92	99	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120139	001352	82	0.14	13.64	3348	50	560D	6.0	29.0
		169	1.68	13.63	1900	35			
		288	8.14	9.75	101	0			
120150	001368	61	0.21	13.50	2713	50	640D	5.0	28.0
		150	0.91	13.84	2015	35			
		185	3.95	12.41	124	0			
120167	001387	111	0.42	13.78	3148	45	600D	6.0	32.0
		130	0.24	13.80	1670	30			
		165	1.71	13.47	182	0			
120259	001564	60	0.21	13.39	2404	49	650D	-10.0	28.0
		144	1.07	13.76	1938	32			
		360	3.01	12.54	204	0			
120335	001700	69	0.24	13.98	2650	51	675D	8.0	31.0
		185	2.22	13.53	1246	36			
		198	5.47	11.52	127	0			
120419	001817	74	0.49	13.72	2116	50	600D	-4.0	30.0
		145	1.09	13.36	1689	36			
		204	4.46	11.76	136	0			
120532	001810	163	1.11	13.15	1123	51	600D	-6.0	30.0
		177	1.54	13.17	373	35			
		247	4.35	11.60	112	0			
120121	001332	135	0.17	13.82	4497	49	560D	6.0	32.0
		211	0.51	14.24	2947	35			
		310	6.62	10.34	110	0			
120323	001687	108	0.19	14.15	3839	50	620D	5.0	29.0
		145	0.40	14.31	1969	35			
		133	1.35	13.95	177	0			
120405	001718	151	0.60	12.97	3701	48	600D	-4.0	31.0
		203	0.48	13.10	2536	35			
		145	0.58	12.50	174	0			
120412	001758	142	0.38	13.18	4120	49	600D	-6.0	30.0
		191	0.51	13.41	1901	35			
		180	0.90	13.34	167	0			
120413	001799	165	0.88	13.13	1185	50	650D	6.0	30.0
		243	1.47	12.86	473	35			
		235	2.44	12.37	148	0			
120415	001787	131	0.61	13.55	1762	49	600D	-6.0	30.0
		222	1.01	13.13	772	34			
		215	1.31	12.81	166	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120420	001719	115	0.24	12.97	3688	50	625D	-6.0	28.0
		133	0.24	12.97	2356	35			
		172	2.21	12.37	160	0			
120424	001756	159	0.14	12.98	3839	50	550D	-6.0	30.0
		228	0.16	13.34	2509	35			
		311	4.94	10.90	99	0			
120240	001510	77	0.16	13.74	2956	50	550D	-2.0	39.0
		143	0.59	14.41	1767	35			
		145	3.55	12.42	126	0			
120241	001518	73	0.03	13.64	3317	50	590D	10.0	27.0
		108	0.36	14.61	2340	36			
		176	4.94	11.58	122	0			
120316	001680	130	0.21	13.76	3963	50	635D	7.5	29.0
		205	0.96	13.96	2313	35			
		211	4.36	11.93	147	0			
120317	001681	90	0.13	13.68	3969	48	620D	10.0	33.0
		124	0.33	14.43	2641	35			
		132	1.36	13.98	175	0			
120403	001724	63	0.16	12.07	2141	50	750D	-2.0	30.0
		74	0.17	12.55	1182	36			
		116	0.31	12.41	505	0			
120071	001273	145	0.59	13.92	3910	39	1250N	0.0	49.0
		110	0.18	13.43	1593	24			
		150	2.57	12.97	100	0			
120083	001286	170	4.72	11.53	980	39	875D	0.0	50.0
		134	0.58	13.74	2882	25			
		128	1.31	13.70	240	0			
120197	001420	140	1.05	13.89	3032	37	1500N	5.0	56.0
		74	0.16	13.58	1394	24			
		91	1.57	13.62	148	0			
120029	001199	91	0.46	13.28	4083	38	1030N	4.0	41.0
		99	0.17	13.15	2990	24			
		118	1.91	12.74	98	0			
120045	001234	91	0.40	13.67	3627	37	890N	4.0	46.0
		73	0.08	13.07	2263	24			
		116	4.46	8.55	82	0			
120056	001253	89	0.37	13.39	2636	37	925N	-4.0	53.0
		82	0.16	13.33	1921	24			
		90	2.33	10.45	87	0			

KANSAS CITY CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
120057	001254	146	3.04	12.32	2047	46	820N	0.0	44.0
		97	0.25	13.09	2590	31			
		239	6.11	10.32	97	0			
120059	001258	159	0.98	13.41	3645	37	740D	0.0	52.0
		142	0.16	13.25	2242	24			
		663	2.63	10.29	102	0			
120061	001260	121	2.05	13.16	2589	46	1000N	-1.0	46.0
		93	0.43	13.47	2999	35			
		232	2.72	12.72	123	0			
120064	001264	105	0.65	13.80	3292	38	950N	-1.0	51.0
		90	0.16	13.30	2145	24			
		63	0.21	13.19	118	0			
120065	001265	103	0.82	13.48	2802	38	825D	-2.0	50.0
		111	0.16	13.50	2828	24			
		98	1.30	11.77	159	0			
120066	001266	85	1.00	13.50	3241	45	825N	-2.0	54.0
		53	0.15	12.36	1795	31			
		106	2.46	12.77	114	0			
120068	001268	97	0.67	13.68	3406	38	975N	0.0	58.0
		75	0.16	13.29	1813	24			
		115	3.12	12.30	106	0			
120069	001269	110	1.53	13.37	3184	44	1000N	3.0	46.0
		59	0.13	12.52	1780	30			
		518	0.13	12.15	78	0			
120072	001274	129	0.45	13.55	3309	37	1100N	1.0	52.0
		105	0.17	13.18	1939	23			
		129	3.95	11.60	95	0			
120075	001278	131	0.49	13.61	2881	37	900N	0.0	50.0
		118	0.12	13.32	2266	25			
		183	4.09	8.34	62	0			
120106	001316	126	1.41	13.54	2600	38	900N	-5.0	56.0
		114	0.41	13.90	2034	25			
		90	3.06	9.88	90	0			
120116	001326	97	0.30	13.90	3320	38	000N	-5.0	52.0
		91	0.14	13.57	2250	26			
		93	3.80	12.01	108	0			
120135	001348	102	0.32	13.67	1882	38	875N	-2.0	54.0
		116	0.14	13.71	1021	24			
		223	4.68	9.35	83	0			

KANSAS CITY

1970 VEHICLES

KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	IRPM	BT	CWL
120209	001440	116	0.40	13.91	3310	38	7250	0.0	54.0
		114	0.11	13.71	2823	23			
		200	3.96	10.63	100	0			

TABLE E-2

Houston

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220173	001388	152	1.33	10.02	55	0	825N	4.0	36.0
		171	0.29	13.19	854	25			
		140	0.19	13.55	2274	38			
220183	001419	219	4.86	8.06	55	0	825N	0.0	51.0
		235	0.28	13.88	1111	25			
		224	0.45	13.73	3032	38			
220189	001443	138	3.28	7.41	48	0	900N	2.0	48.0
		92	0.17	13.82	1191	32			
		137	0.70	13.99	2527	46			
220190	001445	186	4.51	10.51	72	0	925N	4.0	41.0
		130	0.19	12.72	1037	25			
		113	0.16	12.69	2349	38			
220197	001466	152	1.81	10.28	52	0	700N	5.0	49.0
		149	0.17	14.28	866	25			
		146	0.40	14.61	2046	38			
220200	001491	112	2.73	9.76	59	0	975N	0.0	53.0
		112	0.20	13.91	951	25			
		100	0.49	13.76	1936	38			
220205	001524	120	1.07	8.31	53	0	700N	5.0	47.0
		185	0.13	13.54	884	25			
		187	0.12	13.40	2654	38			
220206	001521	172	4.30	5.27	37	0	875N	8.0	43.0
		215	0.67	13.97	864	25			
		145	0.44	13.84	1585	38			
220295	000827	259	8.91	7.59	65	0	875D	5.0	55.0
		142	0.74	13.84	1897	25			
		137	1.46	13.54	2809	38			
220314	001806	138	0.50	13.59	2523	38	750D	5.0	47.0
		158	0.84	13.43	852	22			
		216	4.50	7.87	61	0			
220317	001877	158	3.51	11.09	81	0	700D	0.0	47.0
		190	0.13	13.51	2046	24			
		141	0.38	13.76	3267	37			
220373	001911	244	3.95	10.99	87	0	800N	5.0	60.0
		136	0.31	13.57	981	25			
		116	0.47	13.78	1475	36			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220125	001304	188	5.65	11.29	90	0	675D	-4.0	34.0
		130	0.67	14.29	1491	35			
		83	0.13	13.72	2953	50			
220126	001305	210	4.00	12.26	98	0	600D	6.0	32.0
		127	0.44	14.20	1857	35			
		81	0.13	13.37	2883	50			
220129	001311	213	1.60	13.25	120	0	825D	6.0	44.0
		149	0.98	13.89	1441	35			
		98	0.20	13.75	3096	50			
220130	001312	289	6.12	11.02	75	0	675D	8.0	28.0
		175	0.96	14.33	1366	35			
		124	0.15	14.24	3041	50			
220132	001314	192	4.99	11.82	80	0	725D	6.0	30.0
		133	0.36	14.51	1318	36			
		81	0.15	13.46	1928	50			
220073	001138	105	1.15	11.59	125	0	1000D	5.0	49.0
		132	0.35	14.27	1435	25			
		122	0.31	14.42	2862	38			
220080	001191	302	0.34	11.17	78	0	850N	5.0	52.0
		123	0.13	11.24	321	25			
		123	0.11	11.10	852	38			
220137	001323	157	0.61	14.46	94	0	1125N	5.0	42.0
		79	0.16	14.81	707	25			
		104	0.34	15.40	3120	38			
220025	001043	327	1.07	7.11	47	0	700N	7.0	75.0
		116	0.14	13.21	1055	25			
		138	2.10	12.85	1759	38			
220026	001045	296	1.57	6.56	43	0	725D	0.0	68.0
		151	0.26	13.32	1194	25			
		123	0.16	13.36	2538	38			
220047	001089	438	6.91	4.44	21	0	825N	2.0	44.0
		196	1.33	13.25	824	25			
		143	1.10	12.91	1962	38			
220059	001103	59	0.47	7.97	66	0	900N	0.0	53.0
		100	0.12	13.06	1508	25			
		106	0.83	12.80	2427	38			
220092	001207	200	5.67	6.96	51	0	975N	2.0	68.0
		212	0.38	13.63	1767	25			
		130	0.31	13.43	2594	38			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220035	001068	166	0.78	13.75	148	0	675D	4.0	29.0
		161	0.16	13.60	2102	35			
		130	0.14	13.27	4102	50			
220058	001102	281	5.22	10.61	86	0	625D	4.0	30.0
		99	0.43	13.21	1053	35			
		82	0.31	13.05	2572	49			
220060	001105	849	4.93	11.10	83	0	658D	-3.0	28.0
		191	0.19	14.73	1516	34			
		171	0.23	14.63	3513	49			
220061	001106	136	1.91	11.96	95	0	675D	5.0	30.0
		173	0.41	13.23	2166	34			
		125	0.19	13.01	4204	49			
220068	001122	210	3.50	12.77	73	0	525D	4.0	32.0
		149	0.21	14.29	1630	35			
		118	0.13	13.70	3744	49			
220070	001130	112	0.31	13.52	121	0	675D	2.0	29.0
		165	0.21	13.72	1553	35			
		124	0.15	13.39	3457	50			
220077	001175	265	4.25	12.23	80	0	550D	5.0	30.0
		207	0.60	14.40	1768	36			
		159	0.25	14.37	3769	50			
220078	001176	145	1.10	14.49	130	0	600D	4.0	30.0
		121	0.20	15.03	1891	35			
		114	0.20	15.14	3807	50			
220079	001190	175	1.91	13.21	97	0	650D	0.0	31.0
		140	0.22	13.96	1509	35			
		121	0.23	13.68	3409	50			
220122	001288	153	0.85	14.14	142	0	625D	4.0	32.0
		156	0.25	14.64	1771	36			
		143	0.30	14.54	3537	50			
220089	001203	1927	2.79	11.45	146	0	850D	8.0	31.0
		1818	0.22	12.62	2457	36			
		224	0.12	13.90	3834	50			
220123	001302	226	6.27	10.74	88	0	700D	8.0	28.0
		139	0.60	14.38	1516	35			
		83	0.14	13.61	2971	50			
220124	001303	265	3.99	12.04	99	0	650D	10.0	42.0
		195	0.81	13.86	1638	35			
		112	0.14	13.11	3105	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220046	001088	826	2.69	12.17	102	0	550D	4.0	29.0
		171	0.26	13.83	1424	35			
		125	0.26	13.74	3066	50			
220048	001090	275	9.84	8.55	42	0	650D	-6.0	30.0
		204	1.33	13.51	1077	34			
		147	0.92	13.55	2353	50			
220053	001095	173	5.03	11.46	94	0	875D	4.0	30.0
		96	0.15	13.50	1318	32			
		63	0.14	13.09	2264	50			
220069	001129	253	7.18	9.66	64	0	675D	6.0	28.0
		133	0.29	13.92	1276	35			
		87	0.13	13.46	2363	50			
220301	001872	304	6.22	10.58	62	0	500D	4.0	27.0
		130	0.15	13.51	1419	35			
		70	0.16	13.16	1857	49			
220049	001091	167	5.58	11.12	89	0	650D	4.0	36.0
		157	1.81	13.29	891	35			
		69	0.23	13.34	2116	50			
220050	001092	208	5.61	11.10	79	0	775D	6.0	30.0
		149	1.42	13.42	1068	35			
		70	0.16	13.19	2262	50			
220052	001094	438	6.22	10.73	57	0	500D	5.0	30.0
		234	1.73	13.51	933	35			
		115	0.27	13.46	1804	50			
220055	001098	213	6.32	10.06	71	0	700D	2.0	31.0
		166	1.82	12.54	818	34			
		61	0.18	12.43	1543	50			
220056	001099	327	9.78	8.39	35	0	600D	4.0	30.0
		176	2.02	12.99	720	34			
		87	0.39	13.08	1713	49			
220075	001153	287	8.97	10.12	46	0	725D	-4.0	30.0
		192	2.28	14.58	730	35			
		100	0.47	15.03	2117	50			
220134	001316	217	5.85	10.60	79	0	625D	4.0	30.0
		213	2.83	12.37	636	35			
		122	0.56	13.16	2046	50			
220003	000931	128	0.83	13.16	117	0	625D	-2.0	30.0
		143	0.17	13.60	2310	35			
		109	0.14	13.11	4293	49			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220181	001415	139	1.03	13.49	74	0	575D	8.0	32.0
		98	0.31	14.21	831	35			
		64	0.15	13.59	1516	50			
220273	000679	246	3.01	12.54	74	0	600D	8.0	35.0
		162	0.51	14.20	780	35			
		105	0.29	14.10	1457	50			
220315	001802	55	0.23	13.15	82	0	650D	6.0	26.0
		19	0.17	14.00	305	35			
		20	0.13	13.82	708	49			
220372	001893	52	0.92	13.80	90	0	600D	0.0	32.0
		95	0.20	13.90	1003	35			
		32	0.15	13.38	1061	51			
220106	001230	169	2.14	13.71	90	0	575D	2.0	31.0
		81	0.14	13.96	719	35			
		73	0.13	13.74	1524	51			
220177	001410	211	5.52	11.23	90	0	575D	0.0	29.0
		172	0.14	13.64	1399	35			
		154	0.14	13.30	2246	50			
220180	001414	124	0.52	13.24	90	0	575D	2.0	28.0
		228	0.16	12.91	1621	35			
		148	0.16	12.30	1941	50			
220119	001262	72	0.71	13.94	111	0	600D	0.0	30.0
		36	0.21	14.18	589	35			
		22	0.14	13.55	997	50			
220187	001435	251	3.17	12.46	105	0	675D	6.0	38.0
		194	1.08	13.83	1009	36			
		146	0.80	13.84	1800	50			
220323	000811	113	1.95	12.97	81	0	600D	6.0	35.0
		163	1.00	13.81	1298	35			
		109	0.37	13.80	2477	50			
220344	001892	155	1.93	12.93	97	0	600D	8.0	30.0
		121	0.79	13.36	1012	35			
		79	0.22	13.45	2267	50			
220369	001871	98	1.16	13.54	115	0	650D	5.0	30.0
		44	0.24	14.04	775	35			
		24	0.14	13.66	1189	50			
220015	000955	218	1.43	12.06	49	0	550D	4.0	28.0
		190	0.85	14.03	1563	35			
		139	0.50	14.07	2682	49			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220364	001885	168	2.61	13.07	64	0	600D	9.0	30.0
		140	0.15	13.57	898	35			
		132	0.16	13.61	2193	50			
220033	001066	146	0.69	13.20	205	0	800D	-5.0	40.0
		71	0.15	12.74	640	35			
		174	0.17	12.86	1090	50			
220338	001906	211	4.96	11.53	44	0	450D	0.0	37.0
		103	0.71	13.57	336	35			
		95	0.52	13.77	1261	50			
220105	001229	166	3.78	12.79	105	0	650D	0.0	35.0
		177	0.58	14.04	1710	36			
		109	0.28	14.03	2350	50			
220143	001336	416	4.59	12.02	106	0	650D	4.0	27.0
		210	0.58	13.99	1919	35			
		112	0.16	13.85	2681	50			
220146	001339	770	6.17	10.47	55	0	800D	-4.0	31.0
		262	0.69	13.32	1215	35			
		227	0.94	13.71	2497	50			
220149	001345	163	2.06	13.17	92	0	550D	-4.0	30.0
		97	0.84	13.44	663	35			
		74	0.25	13.38	1565	50			
220155	001356	868	10.29	7.73	29	0	500D	-2.0	25.0
		307	1.86	13.36	1233	35			
		193	0.55	13.87	2315	50			
220160	001361	230	5.93	11.01	97	0	600D	2.0	30.0
		109	1.15	13.87	604	35			
		85	0.35	14.22	1532	50			
220165	001370	96	0.55	13.73	151	0	650D	4.0	29.0
		54	0.27	13.32	699	35			
		38	0.14	12.94	1283	50			
220188	001438	260	1.42	13.38	91	0	625D	6.0	33.0
		204	1.37	13.32	1049	35			
		142	0.60	13.64	1812	50			
220256	001614	225	3.49	12.83	86	0	550D	7.0	38.0
		140	0.16	13.86	755	36			
		147	0.16	13.90	1799	50			
220144	001337	161	2.39	12.57	92	0	625D	8.0	30.0
		107	0.20	13.68	1767	35			
		78	0.15	13.20	3823	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220084	001197	425	0.72	14.73	260	0	725D	-4.0	29.0
		201	0.30	13.89	2436	36			
		120	0.14	12.47	2635	51			
220103	001224	352	5.13	10.46	93	0	650D	6.0	28.0
		203	0.96	12.48	1932	35			
		130	0.14	12.45	2953	50			
220145	001338	173	0.28	14.28	354	0	675D	8.0	33.0
		214	0.30	13.48	2895	35			
		145	0.14	13.23	3454	51			
220302	001800	142	0.30	13.90	177	0	600D	8.0	38.0
		200	0.29	13.10	1837	34			
		165	0.19	13.05	3185	50			
220304	001864	265	6.17	10.89	84	0	600D	9.0	30.0
		305	3.44	12.59	1033	35			
		238	2.03	13.25	2221	50			
220319	000819	223	3.22	12.40	94	0	625D	2.0	35.0
		222	0.47	13.37	1594	35			
		165	0.19	13.14	2395	50			
220104	001227	837	9.51	8.34	30	0	500D	6.0	27.0
		279	3.24	12.85	617	35			
		194	0.69	14.13	2677	50			
220128	001307	128	0.75	13.84	226	0	725D	-6.0	36.0
		145	0.49	13.37	1613	35			
		106	0.18	13.06	2881	50			
220135	001319	417	7.58	9.90	50	0	725D	8.0	30.0
		213	1.41	13.70	1569	35			
		146	0.16	13.85	3845	50			
220139	001328	252	2.87	12.65	92	0	650D	6.0	30.0
		169	0.16	13.53	1345	35			
		123	0.12	13.12	2322	50			
220153	001352	670	3.82	11.18	48	0	675N	8.0	28.0
		166	0.15	12.91	690	36			
		120	0.15	12.56	1201	50			
220214	001562	309	6.20	10.28	65	0	550D	8.0	30.0
		196	0.36	13.67	1234	35			
		169	0.17	13.27	2881	50			
220363	001902	105	1.05	13.53	73	0	675D	10.0	29.0
		108	0.12	12.28	673	34			
		98	0.12	12.61	1876	49			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220352	001945	194	4.81	8.62	48	0	560D	2.0	25.0
		98	0.18	13.32	694	36			
		80	0.17	13.45	1567	50			
220366	001900	291	2.39	12.43	73	0	650D	12.0	23.0
		62	0.18	12.89	633	35			
		41	0.19	13.41	933	50			
220356	001883	824	10.12	8.10	30	0	425D	2.0	30.0
		247	0.83	14.07	1168	35			
		182	0.41	14.05	2625	50			
220072	001140	240	2.81	11.88	110	0	700D	6.0	30.0
		202	0.36	13.06	1500	35			
		165	0.19	12.72	2954	50			
220083	001196	267	2.27	13.58	195	0	675D	-12.0	35.0
		127	0.16	13.39	1137	36			
		115	0.19	13.39	2411	50			
220085	001198	152	2.14	14.11	164	0	800D	-10.0	33.0
		166	0.32	14.38	1746	36			
		133	0.12	13.76	3031	50			
220094	001209	107	0.33	14.56	455	0	850D	2.0	35.0
		107	0.20	13.64	913	35			
		108	0.27	13.41	1990	50			
220095	001210	416	4.46	11.92	131	0	650D	6.0	33.0
		168	0.49	13.62	1505	35			
		173	0.83	13.96	2840	50			
220096	001211	254	6.59	10.79	92	0	600D	8.0	30.0
		194	1.05	13.89	1823	35			
		142	0.17	13.69	3812	50			
220166	001373	512	7.45	9.89	78	0	600D	8.0	35.0
		212	0.34	13.84	1866	35			
		140	0.24	13.01	2794	50			
220191	001446	351	4.78	12.04	97	0	650D	23.0	26.0
		248	0.34	14.68	2128	35			
		192	0.19	13.99	3498	50			
220292	000831	569	8.90	8.97	48	0	500D	15.0	30.0
		245	0.35	13.87	1754	35			
		178	0.23	13.41	2674	50			
220305	001794	250	4.35	11.97	91	2	525D	6.0	25.0
		207	0.89	13.82	755	35			
		163	0.34	13.58	1865	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220157	001358	376	6.25	10.44	84	0	575D	-2.0	24.0
		219	1.09	13.71	2450	35			
		133	0.13	13.32	4168	50			
220184	001429	335	5.08	11.06	101	0	650D	2.0	28.0
		228	1.82	13.44	1554	35			
		175	1.45	13.74	2533	50			
220240	001597	119	3.34	13.11	102	0	550D	-6.0	30.0
		155	0.22	14.00	1746	32			
		171	1.12	14.08	2443	47			
220247	001604	704	8.46	8.98	38	0	600D	0.0	30.0
		218	0.32	13.22	2090	36			
		189	0.60	13.45	2831	50			
220250	001607	177	4.56	13.11	72	0	400D	-2.0	31.0
		177	0.44	15.65	1809	35			
		162	0.74	15.83	2811	50			
220258	001623	522	10.02	8.21	28	0	400D	2.0	34.0
		238	0.23	13.51	2060	35			
		190	0.39	13.56	2548	50			
220259	001625	204	4.68	11.90	93	0	550D	-2.0	31.0
		174	0.27	13.94	1295	35			
		166	0.63	13.92	2358	50			
220261	001628	83	0.83	14.33	100	0	600D	4.0	32.0
		137	0.14	12.69	1126	35			
		157	0.48	14.00	2803	50			
220280	001747	393	5.10	11.24	107	0	450D	6.0	28.0
		233	0.72	13.27	1789	35			
		163	0.24	13.44	2375	50			
220339	002010	343	3.16	12.71	125	0	625D	12.0	28.0
		315	1.89	13.28	2259	36			
		262	2.27	13.19	2328	49			
220357	001888	219	3.77	12.66	70	0	650D	6.0	30.0
		250	0.15	13.83	1526	35			
		176	0.17	13.73	2768	50			
220367	001878	312	6.52	10.55	76	0	600D	6.0	30.0
		310	1.19	13.32	1535	35			
		226	1.51	13.53	2462	50			
220318	000836	304	7.72	9.54	68	0	725D	8.0	30.0
		147	0.17	13.39	1262	35			
		122	0.22	13.38	2443	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220018	000944	201	5.84	10.70	101	0	650D	4.0	27.0
		148	0.49	13.13	1998	34			
		115	0.62	13.56	2641	49			
220019	000945	326	5.16	10.93	94	4	675D	-9.0	29.0
		130	0.13	12.85	1687	36			
		208	1.30	12.99	2034	49			
220029	001057	227	5.55	11.14	90	0	650D	5.0	26.0
		144	0.20	13.50	1926	35			
		148	0.90	13.76	2780	50			
220032	001063	189	4.71	11.65	104	0	725D	5.0	27.0
		128	0.11	13.56	2163	32			
		121	0.33	13.69	3375	46			
220034	001067	322	8.77	9.14	64	0	525D	5.0	28.0
		226	0.73	13.70	1868	32			
		160	0.24	13.58	3139	46			
220038	001073	330	3.60	12.52	126	0	800D	4.0	30.0
		213	2.10	13.46	1371	32			
		169	1.50	13.76	2640	46			
220051	001093	475	8.31	9.51	59	0	675D	6.0	27.0
		216	0.76	13.46	1917	35			
		177	0.87	13.83	2656	50			
220057	001101	249	6.78	10.78	82	0	825D	3.0	30.0
		182	0.47	14.07	2049	35			
		163	0.83	14.47	2724	50			
220062	001113	223	3.70	12.04	115	0	675D	4.0	30.0
		139	0.12	12.59	1705	31			
		116	0.12	12.85	3261	46			
220064	001118	204	5.51	10.91	93	0	600D	4.0	28.0
		198	0.73	13.35	2364	35			
		156	0.55	13.58	3121	50			
220086	001200	249	5.50	10.99	86	0	575D	4.0	28.0
		173	0.43	12.98	2537	34			
		158	0.83	13.81	3430	51			
220100	001215	397	7.43	10.41	52	0	575D	2.0	32.0
		209	0.48	14.28	2806	36			
		121	0.15	13.03	2602	50			
220138	001324	250	7.78	9.77	66	0	775D	2.0	29.0
		169	0.33	13.84	1988	35			
		177	1.95	13.28	2336	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220163	001366	91	0.10	11.02	46	0	650N	3.0	28.0
		66	0.15	13.88	726	32			
		97	0.16	13.92	2000	46			
220169	001379	264	4.27	12.23	99	0	600D	2.0	32.0
		247	2.21	13.65	1454	35			
		238	4.12	12.48	1332	51			
220174	001390	300	4.98	11.54	75	0	575D	8.0	28.0
		245	0.16	14.02	2826	35			
		190	0.20	13.52	3666	50			
220196	001456	283	4.14	12.25	99	0	550D	6.0	28.0
		222	0.15	13.80	2764	35			
		181	0.12	13.35	3866	50			
220199	001488	374	7.96	9.70	51	0	500D	6.0	28.0
		316	2.20	13.40	1330	35			
		222	0.41	14.15	3085	50			
220220	001572	470	6.75	10.20	77	0	500D	-4.0	30.0
		379	1.81	13.31	1921	35			
		291	1.04	13.65	3098	50			
220224	001577	408	6.54	11.11	89	0	525D	2.0	29.0
		324	0.40	14.79	2902	35			
		213	0.12	14.10	3918	50			
220239	001596	63	0.25	14.12	80	0	600D	4.0	30.0
		135	0.22	13.63	1330	32			
		116	0.16	13.24	2106	46			
220242	001599	216	6.01	11.30	71	0	475D	4.0	30.0
		201	0.91	14.31	2042	36			
		143	0.20	14.28	3291	50			
220265	001641	438	3.70	12.44	101	0	600D	10.0	24.0
		238	0.88	14.04	2106	36			
		170	0.18	13.68	3475	51			
220272	001669	227	4.65	11.69	101	0	625D	4.0	30.0
		192	0.31	12.89	1271	35			
		206	1.62	13.16	2137	50			
220297	001795	503	4.81	11.31	60	0	700N	4.0	20.0
		171	0.13	13.15	993	35			
		118	0.14	13.30	2110	50			
220371	001887	165	3.16	12.82	81	0	575D	10.0	28.0
		311	1.84	13.44	1567	35			
		206	0.36	13.73	3248	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220321	002100	339	6.14	11.00	72	0	650D	4.0	28.0
		254	0.93	12.98	1304	32			
		110	0.23	13.17	1894	46			
220331	000814	644	9.15	8.62	37	0	475N	4.0	28.0
		214	0.60	13.87	835	32			
		175	0.76	13.80	1995	46			
220332	002091	355	7.91	10.11	56	0	600D	4.0	32.0
		275	2.93	12.96	727	32			
		167	0.46	14.00	2134	45			
220343	001890	312	5.74	11.07	49	0	650N	4.0	35.0
		211	0.29	13.48	978	33			
		149	0.25	13.32	1241	46			
220361	001879	2129	8.65	8.01	57	0	500N	4.0	30.0
		342	0.36	13.70	687	32			
		240	0.51	13.78	1327	46			
220380	002080	321	5.47	11.26	78	0	800N	0.0	27.0
		135	0.21	13.24	778	32			
		124	0.24	13.45	1972	46			
220381	002064	464	9.18	9.18	33	0	500D	6.0	29.0
		222	0.95	13.69	1867	32			
		140	0.55	13.78	2519	46			
220014	000953	273	4.75	11.91	79	0	575D	-6.0	31.0
		234	0.30	14.05	2997	35			
		178	0.19	13.68	4139	50			
220090	001204	223	1.98	13.51	163	0	600D	2.0	29.0
		202	0.11	13.54	3783	36			
		153	0.10	13.20	4281	50			
220097	001212	215	1.30	13.98	324	0	750D	-4.0	30.0
		183	0.11	13.37	3415	35			
		149	0.10	13.48	4221	50			
220099	001214	281	7.39	10.04	80	0	550D	0.0	30.0
		207	0.11	13.55	3522	36			
		188	0.20	13.95	3909	50			
220141	001331	236	2.20	13.38	180	0	650D	6.0	30.0
		251	0.30	14.08	3112	35			
		190	0.18	13.44	4278	50			
220158	001359	244	4.21	12.48	72	0	775D	8.0	29.0
		130	0.46	14.39	1358	32			
		152	0.25	14.50	3417	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220030	001058	261	4.73	11.48	74	0	675N	4.0	30.0
		206	0.48	13.56	1161	32			
		165	0.32	13.51	2819	46			
220037	001072	296	4.10	11.96	103	0	625D	-5.0	45.0
		195	0.14	13.22	2093	32			
		149	0.14	13.04	2894	46			
220042	001084	182	2.72	13.08	222	0	725D	-4.0	31.0
		148	0.19	13.60	1833	32			
		128	0.41	13.98	2725	46			
220043	001085	249	3.69	11.99	93	0	725D	4.0	30.0
		166	0.17	13.19	1882	32			
		131	0.38	13.06	2577	46			
220044	001086	122	0.42	13.44	308	0	725D	3.0	29.0
		119	0.11	12.49	1496	32			
		113	0.26	12.86	2716	46			
220045	001087	245	3.88	12.19	80	0	700D	6.0	29.0
		140	0.13	13.26	1398	32			
		112	0.36	13.18	1980	46			
220065	001119	326	4.63	11.71	66	0	575D	2.0	29.0
		115	0.43	13.84	542	32			
		113	1.38	13.19	820	46			
220067	001121	137	0.66	13.96	308	0	700D	2.0	28.0
		156	0.19	13.43	1540	31			
		133	0.36	13.34	2496	46			
220076	001171	253	3.29	12.71	123	0	700S	-6.0	26.0
		205	0.31	14.01	1500	32			
		191	0.89	13.95	2681	46			
220133	001315	209	4.90	11.82	81	0	875N	6.0	30.0
		192	0.33	13.96	1629	32			
		160	0.38	13.90	3098	46			
220175	001395	1996	9.85	7.33	57	0	385N	2.0	24.0
		400	1.03	13.62	1284	32			
		288	0.35	13.86	3063	46			
220179	001413	155	3.38	13.22	85	0	775N	4.0	29.0
		166	0.24	14.25	1330	32			
		158	0.61	14.00	2442	46			
220210	001556	267	5.77	11.30	73	0	650D	0.0	37.0
		198	0.18	13.99	1382	32			
		181	0.32	13.86	2745	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES ---------KEY MODE--------- HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220218	001570	135	3.68	12.56	85	0	600D	3.0	27.0
		99	0.18	12.39	699	32			
		52	0.21	11.95	651	46			
220237	001594	52	0.16	13.81	113	0	725D	0.0	27.0
		62	0.16	12.24	358	32			
		50	0.19	11.98	1067	47			
220271	001667	160	3.53	12.57	76	0	600D	0.0	34.0
		89	0.32	14.18	394	32			
		53	0.16	13.62	1035	50			
220277	001731	319	8.99	9.17	40	0	550N	2.0	30.0
		235	0.72	14.02	2607	35			
		106	0.14	13.22	3649	50			
220300	000844	31	0.19	14.15	122	0	650D	0.0	30.0
		76	0.19	12.14	706	31			
		22	0.16	12.93	1058	45			
220320	001810	176	5.39	11.35	63	0	550N	4.0	32.0
		166	0.57	13.87	1212	35			
		83	0.15	12.90	2270	50			
220342	001869	301	5.57	11.38	63	0	500D	8.0	33.0
		167	0.17	13.84	2077	32			
		122	0.12	13.55	4111	46			
220346	000852	194	5.86	10.59	65	0	650D	5.0	32.0
		37	0.17	12.00	316	36			
		39	0.19	13.44	2320	50			
220350	001853	196	6.79	10.52	66	0	550D	-2.0	36.0
		162	0.17	13.47	1460	32			
		80	0.17	12.91	2223	45			
220351	001854	35	0.18	12.92	1348	49	500D	2.0	37.5
		103	0.17	13.08	1594	35			
		285	7.27	9.75	97	0			
220378	002054	380	5.56	11.13	48	0	600N	2.0	38.0
		218	0.13	13.30	2271	35			
		92	0.14	12.63	2990	50			
220001	000924	194	2.19	13.06	196	0	725D	-4.0	28.0
		182	0.25	13.67	1712	30			
		141	0.58	13.57	3026	50			
220028	001056	319	6.77	10.47	75	0	550D	4.0	29.0
		234	1.05	13.12	1454	32			
		141	0.30	13.35	2273	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220212	001559	37	0.25	14.15	184	0	475D	-12.0	34.0
		87	0.20	13.55	1063	35			
		95	0.38	13.56	2092	50			
220254	001611	169	5.69	11.43	84	0	425D	4.0	37.0
		205	1.04	13.88	1573	35			
		142	1.58	13.28	1666	51			
220293	000823	178	4.98	11.70	77	0	575D	4.0	38.0
		174	0.47	13.68	1956	35			
		162	0.53	13.70	3119	50			
220299	001808	175	4.48	10.96	51	0	500D	4.0	30.0
		86	0.13	10.96	910	35			
		98	0.28	12.09	2005	50			
220341	001868	126	1.37	10.93	86	0	500D	6.0	29.0
		108	0.22	10.97	839	35			
		111	0.68	11.61	1621	51			
220091	001206	419	8.58	9.91	79	0	625D	0.0	31.0
		179	0.17	12.78	1147	32			
		117	0.19	13.80	3069	46			
220290	000851	334	2.63	12.89	123	0	600D	10.0	30.0
		231	0.13	12.31	1834	32			
		138	0.15	12.03	2079	47			
220329	000816	71	1.04	13.95	106	0	675N	0.0	35.0
		143	0.16	13.28	714	32			
		148	0.16	13.14	2030	46			
220360	001891	173	3.70	12.15	59	0	650N	2.0	37.0
		217	0.25	13.74	938	33			
		177	0.52	13.88	1799	46			
220377	001894	116	1.19	13.76	88	0	425N	0.0	33.0
		166	0.17	13.70	817	32			
		181	0.35	13.83	2600	46			
220172	001387	275	4.38	12.03	81	0	575N	0.0	37.0
		254	0.73	13.86	1473	32			
		186	0.18	13.79	3114	46			
220182	001418	164	6.20	10.31	61	0	475N	0.0	36.0
		182	0.61	14.16	870	32			
		129	0.23	14.02	2090	46			
220198	001476	302	7.08	10.39	65	0	600N	0.0	36.0
		202	0.15	13.36	1148	32			
		170	0.16	13.72	3157	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPH	BT	DWL
220310	001796	37	0.10	12.81	62	0	400N	6.0	40.0
		148	0.17	13.58	1385	35			
		146	0.16	13.56	3340	50			
220066	001120	176	6.98	10.63	72	0	650N	-2.0	45.0
		194	0.71	13.81	2787	32			
		136	0.21	13.29	4091	46			
220204	001512	42	0.17	13.26	172	0	400D	0.0	43.0
		197	2.05	13.36	1030	32			
		146	1.22	13.53	2128	46			
220278	001743	130	1.94	13.64	105	0	650D	6.0	40.0
		196	0.60	13.89	1594	32			
		151	0.48	13.47	2434	46			
220279	001744	130	0.94	13.80	91	0	625D	6.0	39.0
		121	0.66	13.79	823	32			
		89	0.43	13.46	1591	46			
220311	001801	120	2.80	13.04	172	0	450D	8.0	42.0
		193	0.69	13.50	2410	32			
		158	0.34	13.28	3637	46			
220244	001601	145	6.42	11.22	94	0	625D	-2.0	33.0
		167	0.69	14.30	1662	35			
		104	0.69	13.53	1591	50			
220291	001793	1406	8.54	8.75	57	0	500D	12.0	25.0
		1372	1.14	12.71	950	36			
		803	3.03	12.43	1629	50			
220208	001553	108	0.37	14.47	168	0	450D	4.0	35.0
		154	0.37	13.93	1173	35			
		140	0.42	13.86	2300	50			
220330	001882	242	5.39	10.92	63	0	500N	0.0	28.0
		155	0.67	14.08	647	35			
		156	1.92	13.40	1222	50			
220340	001873	141	3.70	12.63	88	0	450D	-8.0	28.0
		97	0.58	13.88	1192	33			
		65	0.28	13.84	2297	48			
220375	001881	43	0.40	14.08	122	0	800N	-5.0	30.0
		167	0.22	13.38	1155	36			
		191	0.42	13.47	2630	50			
220118	001258	140	4.07	12.64	126	0	550D	-4.0	37.0
		158	0.37	14.05	1838	35			
		142	0.57	14.06	2708	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220219	001571	136	0.47	14.08	78	0	400D	2.0	32.0
		137	0.24	13.42	1531	35			
		78	0.25	13.31	2316	50			
220232	001588	842	11.95	7.02	37	0	550D	8.0	30.0
		286	1.05	14.18	1875	35			
		281	0.19	13.78	2832	51			
220245	001602	344	7.36	10.55	44	0	550D	10.0	33.0
		243	3.45	13.06	945	35			
		230	4.32	12.48	1350	50			
220255	001612	275	5.72	11.22	61	0	550D	-4.0	32.0
		195	0.55	13.63	1381	35			
		142	1.03	13.06	1451	50			
220270	001656	365	8.55	9.88	51	0	550D	4.0	30.0
		236	0.30	14.21	1687	35			
		215	0.56	14.26	2635	50			
220274	001728	165	0.84	14.21	230	0	525D	0.0	35.0
		164	0.21	13.48	2414	35			
		152	0.44	13.72	3034	50			
220276	001730	170	3.46	12.57	113	0	500D	5.0	31.0
		177	0.41	13.71	1684	35			
		146	0.34	13.64	2552	50			
220195	001460	302	0.98	14.00	192	0	675D	4.0	26.0
		117	0.36	13.70	824	35			
		116	0.49	14.07	1829	50			
220248	001605	179	2.15	13.45	110	0	600D	0.0	27.0
		170	0.79	13.72	1072	35			
		227	2.03	13.31	2216	50			
220303	001860	224	3.13	12.76	107	0	700D	10.0	28.0
		139	0.97	13.81	935	35			
		176	1.30	13.58	1715	49			
220324	000824	86	3.84	12.44	100	0	500D	12.0	35.0
		99	0.21	13.55	859	35			
		170	0.80	13.51	1897	50			
220358	001898	69	1.18	14.00	133	0	425D	-12.0	37.0
		93	0.21	13.44	675	35			
		168	0.78	13.57	1935	50			
220107	001231	169	3.32	12.25	102	0	600N	-4.0	39.0
		181	0.13	12.62	2524	35			
		175	0.35	13.32	3526	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220243	001600	126	1.99	13.91	68	0	400D	2.0	33.0
		142	0.18	13.98	2024	35			
		71	0.22	13.70	1503	50			
220246	001603	229	6.04	11.04	81	0	475D	2.0	30.0
		174	0.30	13.67	1067	32			
		180	0.88	13.30	2039	47			
220253	001610	100	0.59	13.94	86	0	520D	2.0	30.0
		160	0.26	13.62	783	32			
		177	0.75	13.57	1647	46			
220260	001626	121	0.67	14.26	99	0	375D	0.0	35.0
		187	0.40	13.75	1945	36			
		147	0.35	13.93	2460	50			
220283	001754	122	1.38	13.97	178	0	600D	8.0	32.0
		192	0.66	13.73	1772	35			
		152	0.80	13.68	2237	49			
220284	001785	151	3.79	12.45	81	0	600D	4.0	30.0
		164	0.31	13.65	1116	35			
		187	0.52	13.55	2701	50			
220287	001790	331	8.93	9.40	59	0	625D	0.0	31.0
		284	0.52	13.66	2425	33			
		219	0.51	13.55	3353	49			
220288	001799	222	5.15	11.63	83	0	500D	4.0	44.0
		222	0.33	13.56	1660	34			
		122	0.32	13.35	1601	50			
220313	001797	138	1.11	13.83	190	1	600D	0.0	30.0
		219	0.51	13.72	2564	35			
		222	1.32	13.53	2875	50			
220112	001242	277	5.02	12.34	96	0	600D	0.0	34.0
		254	0.63	14.77	2911	35			
		122	0.24	14.67	3003	50			
220152	001351	147	2.19	13.28	102	0	525D	0.0	31.0
		154	0.13	13.89	2103	35			
		113	0.18	14.22	2631	50			
220159	001360	93	0.40	13.83	106	0	600D	6.0	32.0
		68	0.36	13.25	740	35			
		38	0.20	12.92	1198	50			
220178	001412	253	6.07	11.05	85	0	600D	4.0	30.0
		208	0.38	13.81	1922	35			
		191	0.60	13.80	3065	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220269	001655	444	2.89	13.11	81	0	500D	5.0	33.0
		268	0.21	13.53	1508	35			
		248	0.42	13.57	2710	50			
220289	001791	118	0.44	14.00	163	0	600D	0.0	32.0
		199	0.29	13.74	1254	32			
		223	0.34	13.71	3041	45			
220316	000825	177	4.43	12.17	76	0	600N	0.0	35.0
		192	0.70	13.74	450	32			
		259	0.78	13.45	2122	46			
220002	000926	578	2.22	12.36	99	0	475D	-0.2	34.0
		151	0.31	12.74	2003	34			
		114	0.38	12.86	2583	49			
220110	001234	281	6.72	10.04	67	0	450D	2.0	35.0
		210	0.19	12.51	3104	35			
		113	0.16	12.62	2843	50			
220120	001269	88	2.22	13.30	118	0	675N	0.0	33.0
		162	0.17	13.04	1762	35			
		143	0.37	13.11	2752	50			
220127	001306	230	5.24	11.71	116	0	575D	0.0	38.0
		135	0.16	13.28	1195	32			
		128	0.37	13.62	2459	46			
220147	001340	211	8.49	9.28	66	0	500D	0.0	34.0
		257	0.99	13.01	1820	35			
		193	1.04	12.68	2409	50			
220167	001376	129	0.85	13.81	153	0	600D	0.0	31.0
		117	0.24	13.61	1199	35			
		121	0.59	13.57	2405	51			
220171	001386	144	0.15	13.33	213	0	450D	0.0	34.0
		213	0.16	13.31	2438	35			
		163	0.32	13.14	2887	50			
220226	001579	822	0.09	12.58	245	0	550D	6.0	33.0
		142	0.18	13.76	709	33			
		154	0.52	14.07	1881	47			
220238	001595	85	1.60	13.73	101	0	575D	5.0	35.0
		197	0.37	13.50	2030	35			
		161	0.92	13.26	2184	50			
220241	001598	291	11.36	8.30	36	0	400D	-2.0	32.0
		189	0.65	14.07	1537	36			
		125	0.52	13.98	1812	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220211	001558	369	8.62	9.44	76	0	600D	10.0	40.0
		293	0.12	13.28	3957	33			
		230	0.10	13.10	4242	46			
220004	000932	77	0.83	13.66	234	0	675D	-6.0	34.0
		148	0.83	13.24	890	32			
		186	1.39	13.03	2036	46			
220005	000930	196	5.33	11.78	98	0	600D	-7.0	34.0
		147	0.45	13.91	1177	33			
		185	0.44	13.37	3284	46			
220054	001096	192	4.32	12.10	81	0	775D	0.0	30.0
		235	0.37	13.75	1569	32			
		254	0.38	13.66	3492	46			
220115	001247	703	0.89	12.74	90	0	625N	-8.0	25.0
		198	0.16	13.04	708	32			
		183	0.18	13.29	2542	50			
220142	001332	124	0.15	13.57	275	0	625D	4.0	30.0
		212	0.19	13.16	1720	32			
		244	0.35	13.34	3439	46			
220148	001342	144	0.34	12.91	147	0	475D	-4.0	38.0
		197	0.37	12.71	1945	35			
		184	0.19	12.58	3896	50			
220168	001378	266	2.64	13.03	108	0	550D	0.0	34.0
		174	0.23	13.51	861	32			
		232	0.40	13.49	2982	46			
220192	001452	173	2.68	13.03	120	0	675D	0.0	36.0
		182	0.39	13.65	1151	33			
		215	0.56	13.61	3147	46			
220221	001573	134	0.19	14.34	222	0	600D	-2.0	40.0
		185	0.45	13.91	972	32			
		214	0.41	13.89	2720	46			
220228	001583	153	2.28	12.27	76	0	600N	6.0	30.0
		192	0.25	12.66	578	32			
		244	0.50	12.53	2095	46			
220235	001591	218	0.39	13.30	82	0	500D	0.0	30.0
		233	0.22	13.25	1858	33			
		229	0.28	13.10	3467	47			
220249	001606	179	5.44	11.40	69	0	475D	-6.0	30.0
		123	0.25	13.78	648	32			
		170	0.35	13.69	2384	47			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220008	000929	200	5.77	8.52	47	0	850D	0.0	34.0
		146	3.09	12.67	825	36			
		129	2.91	12.90	1574	49			
220266	001645	514	9.66	8.43	21	0	500D	5.0	31.0
		198	1.00	13.64	1848	35			
		188	1.97	13.31	2022	51			
220087	001201	156	4.30	11.57	104	0	525D	2.0	41.0
		196	0.27	14.33	2244	25			
		165	0.10	13.18	4293	38			
220257	001622	111	0.69	13.05	122	0	650N	0.0	60.0
		336	0.19	13.36	2286	31			
		210	0.18	12.85	2433	47			
220294	001788	81	0.22	13.71	105	0	625N	0.0	32.0
		224	0.12	13.24	635	25			
		289	0.15	13.24	2699	38			
220296	000843	64	0.14	13.74	125	0	775N	-2.0	38.0
		358	0.23	13.27	1856	32			
		296	0.17	13.31	3042	46			
220306	001901	173	4.65	12.00	79	0	800N	0.0	36.0
		210	0.11	13.50	822	25			
		248	0.18	13.30	3232	36			
220353	001876	203	4.40	12.14	92	0	775N	-4.0	35.0
		262	0.48	13.95	943	25			
		310	0.30	13.80	2670	36			
220031	001061	47	0.36	13.96	178	0	725N	0.0	38.0
		168	0.16	13.55	885	25			
		224	0.15	13.48	3239	38			
220114	001246	160	4.46	6.00	45	0	575D	2.0	36.0
		228	0.12	14.16	2163	25			
		183	0.14	13.75	3753	39			
220117	001257	646	6.64	10.08	72	0	600D	-4.0	37.0
		232	0.12	13.23	1821	25			
		201	0.12	12.46	3595	38			
220140	001330	241	3.28	8.38	81	0	450D	-2.0	41.0
		178	0.17	12.66	1810	32			
		110	0.18	13.09	3170	46			
220161	001362	208	3.11	12.21	115	0	600D	0.0	37.0
		206	0.11	12.63	1769	25			
		180	0.12	12.52	3720	35			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220017	000941	1823	12.00	5.61	54	0	475D	4.0	30.0
		201	2.32	13.47	1488	35			
		178	3.58	12.69	1557	49			
220098	001213	286	7.94	9.72	79	0	600D	-2.0	27.0
		219	0.21	13.81	3376	35			
		131	0.34	14.20	2465	50			
220113	001243	108	2.16	13.23	94	0	650D	2.0	35.0
		108	0.18	13.16	2797	35			
		102	0.94	13.69	2532	50			
220156	001357	204	4.10	11.51	77	0	600D	6.0	30.0
		83	0.16	12.67	1058	35			
		86	0.34	13.47	2555	50			
220186	001431	175	3.90	12.07	83	0	600D	5.0	35.0
		131	0.24	13.27	2475	35			
		130	1.01	13.56	2929	50			
220213	001560	239	3.11	12.31	124	0	525D	0.0	35.0
		155	0.49	12.75	1157	35			
		119	0.39	13.06	2510	50			
220312	000815	117	1.95	12.66	79	0	500D	2.0	35.0
		119	0.73	13.64	1068	35			
		116	0.60	13.73	2556	50			
220349	000850	270	6.20	10.19	54	0	550D	2.0	30.0
		163	0.97	13.36	1352	35			
		167	1.74	13.33	2333	50			
220251	001608	333	2.10	10.92	37	0	600D	8.0	30.0
		408	7.48	9.15	149	33			
		437	10.10	8.04	130	46			
220010	000934	847	7.51	8.97	69	0	575D	-4.0	35.0
		164	1.26	14.13	2424	35			
		140	1.76	14.09	2738	48			
220121	001273	239	5.20	11.58	65	0	500D	2.0	35.0
		174	0.56	14.83	2238	35			
		166	1.39	14.74	2591	50			
220263	001653	402	3.67	7.69	32	0	550D	5.0	37.0
		188	2.42	12.93	413	35			
		134	0.99	13.74	1417	50			
220326	001862	190	3.96	8.59	51	0	650D	2.0	40.0
		148	2.40	12.43	481	35			
		126	2.06	12.75	1571	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220162	001363	478	5.62	11.21	83	0	675D	0.0	32.0
		201	0.21	14.10	1747	32			
		156	0.36	13.93	2622	46			
220170	001385	241	5.71	10.18	90	0	650D	5.0	29.0
		184	0.19	12.96	2683	32			
		150	0.28	13.01	3930	46			
220176	001399	132	1.34	12.66	99	0	525D	0.0	33.0
		119	0.16	12.68	1426	35			
		112	0.34	13.13	2348	50			
220185	001430	131	3.13	12.66	108	0	700D	4.0	30.0
		113	0.13	13.54	1713	32			
		111	0.18	13.57	3149	46			
220201	001495	266	6.25	10.85	78	0	650D	0.0	34.0
		185	0.54	14.13	1273	32			
		154	0.32	14.23	2671	46			
220202	001504	152	1.76	12.79	89	0	525D	-6.0	30.0
		132	0.17	13.23	991	32			
		132	0.31	13.52	2352	46			
220203	001511	126	1.49	12.87	102	0	500D	4.0	35.0
		147	0.26	13.62	1251	32			
		137	0.25	13.70	2481	46			
220216	001564	56	0.55	13.91	135	0	650D	0.0	32.0
		152	0.58	13.04	1657	35			
		130	0.30	13.45	2943	50			
220222	001575	116	1.04	13.65	101	0	600D	0.0	44.0
		186	0.15	13.57	2305	35			
		134	0.37	13.83	2252	50			
220007	000928	412	9.81	8.70	47	0	775D	4.0	35.0
		212	2.90	12.78	1219	36			
		162	1.56	13.33	2821	49			
220012	000936	89	1.90	12.72	119	0	650D	TD.C	37.0
		98	0.32	14.1C	2761	35			
		106	0.51	14.42	3502	48			
220013	000937	157	6.09	10.19	82	0	625D	-5.0	36.0
		93	0.17	12.55	2375	35			
		76	0.58	12.59	2941	49			
220016	000940	792	10.13	7.45	44	0	600D	-2.0	33.0
		111	0.13	12.25	2316	35			
		88	0.27	13.06	3789	49			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220281	001748	503	1.71	13.56	74	0	625N	0.0	42.0
		498	1.47	13.69	1742	35			
		499	0.41	13.61	2972	50			
220382	002069	188	3.17	12.18	112	0	950N	10.0	50.0
		112	0.32	13.44	2757	32			
		96	1.12	13.30	3510	46			
220009	000933	164	2.38	13.05	103	0	625D	0.0	28.0
		131	0.12	12.90	2881	35			
		97	0.17	13.24	3385	49			
220011	000935	248	7.98	9.58	50	0	600D	2.0	35.0
		104	0.13	13.13	2239	35			
		87	0.21	13.22	3720	49			
220024	001022	95	0.46	14.28	134	0	700D	2.0	34.0
		115	0.15	12.97	1452	32			
		121	0.23	13.52	3458	46			
220027	001055	217	5.51	10.69	90	0	625D	-2.0	26.0
		138	0.13	12.86	2476	35			
		119	0.24	12.80	3528	50			
220040	001082	129	1.64	13.55	102	0	700D	0.0	26.0
		117	0.14	13.00	1395	32			
		112	0.16	13.23	3243	46			
220093	001208	86	0.70	14.17	108	0	650N	5.0	33.0
		159	0.14	13.75	1936	33			
		159	0.27	13.93	3420	46			
220101	001216	267	3.53	12.22	119	0	675D	0.0	31.0
		163	0.13	13.48	2541	33			
		120	0.22	13.51	2927	46			
220102	001217	151	1.49	13.70	155	0	675D	5.0	26.0
		157	0.14	13.85	2520	32			
		139	0.31	13.98	3707	46			
220109	001233	182	1.97	13.60	145	0	650D	5.0	26.0
		165	0.14	13.24	3453	32			
		99	0.17	13.64	3050	46			
220151	001349	165	1.27	13.76	337	0	700D	2.0	27.0
		113	0.10	13.29	3084	32			
		94	0.28	13.96	4285	46			
220154	001353	283	6.11	10.83	73	0	575D	4.0	30.0
		246	0.29	14.10	1659	32			
		154	0.22	13.73	2526	50			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220111	001239	157	2.60	13.08	229	0	650D	0.0	47.0
		113	0.13	13.78	4277	32			
		87	0.78	13.91	3298	47			
220150	001348	134	0.50	12.60	207	0	550D	4.0	45.0
		137	0.14	13.05	3413	32			
		119	0.42	13.15	4255	46			
220164	001367	315	6.69	9.03	88	0	600D	6.0	38.0
		143	0.12	13.71	3687	32			
		106	0.30	13.99	4292	46			
220194	001458	245	6.35	9.66	73	0	500D	5.0	38.0
		174	1.54	13.55	2037	32			
		121	0.49	13.58	3212	46			
220217	001569	139	3.33	12.65	109	0	675D	2.0	32.0
		129	0.17	13.96	2063	32			
		118	0.50	14.05	3544	46			
220223	001581	268	6.33	10.14	92	0	675D	2.0	37.0
		168	0.24	13.81	1976	31			
		108	0.18	13.16	1943	46			
220225	001578	386	9.12	7.73	26	0	700D	2.0	33.0
		186	1.88	13.42	1212	32			
		123	0.55	13.50	2733	46			
220229	001584	183	3.05	12.87	121	0	600D	0.0	36.0
		141	0.18	14.85	2106	32			
		128	0.50	14.76	3373	47			
220230	001585	202	6.19	9.33	67	0	575D	0.0	43.0
		162	0.61	12.67	2666	32			
		103	0.25	12.29	3107	46			
220236	001592	215	5.71	11.09	88	0	600D	4.0	29.0
		157	0.33	13.77	3307	32			
		112	0.14	13.16	4289	46			
220252	001609	49	0.13	12.88	109	0	625D	2.0	32.0
		114	0.48	13.71	1753	32			
		88	0.32	13.45	2921	46			
220262	001631	117	0.30	12.51	190	0	600D	0.0	46.0
		151	0.58	12.37	2282	32			
		773	0.77	12.48	3370	46			
220267	001646	229	4.83	11.78	90	0	600D	0.0	45.0
		138	0.14	13.50	1615	32			
		122	0.46	13.55	2771	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220131	001313	129	1.43	13.78	165	0	600D	4.0	29.0
		88	0.30	13.83	801	35			
		73	0.20	13.63	1606	50			
220307	001804	144	2.49	12.87	123	0	500D	2.0	30.0
		205	0.52	13.64	1484	35			
		207	1.05	13.52	2436	50			
220308	001859	57	0.35	13.89	122	0	600D	5.0	28.0
		129	0.33	13.80	1429	31			
		130	0.38	13.84	2041	46			
220384	002124	51	0.42	10.30	50	0	750N	4.0	29.0
		145	0.13	10.28	2359	32			
		123	0.21	11.39	3551	46			
220286	001807	118	0.11	13.08	225	0	650D	5.0	26.0
		195	0.26	13.30	1920	35			
		215	0.70	13.51	3198	50			
220376	001915	261	6.77	9.90	55	0	500D	4.0	28.0
		217	1.80	13.55	1227	32			
		192	1.66	13.56	2119	47			
220298	001789	854	0.67	12.24	64	0	500D	10.0	29.0
		221	0.15	13.19	1328	35			
		207	0.71	13.48	3394	50			
220275	001729	242	0.45	12.82	90	0	600N	6.0	32.0
		210	1.84	13.36	1518	32			
		133	0.49	13.47	2801	46			
220309	001798	129	0.14	13.34	273	0	575D	2.0	45.0
		203	0.23	13.49	2579	32			
		244	5.23	11.39	737	46			
220328	000818	150	2.56	13.17	101	0	650N	4.0	45.0
		161	0.58	13.59	1471	32			
		121	0.35	13.54	2440	46			
220334	002085	78	0.40	13.25	134	0	900N	0.0	55.0
		194	2.79	12.65	1854	32			
		104	0.92	13.42	3823	46			
220359	001904	324	0.48	12.66	95	0	800N	4.0	40.0
		189	1.08	13.59	1369	32			
		128	0.48	13.72	2407	46			
220039	001075	187	3.97	11.76	270	0	800D	6.0	43.0
		192	3.04	12.81	1241	32			
		100	0.30	13.47	4282	46			

HOUSTON CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
220041	001083	175	2.15	13.11	190	0	600D	0.0	35.0
		135	0.11	12.33	2212	32			
		85	0.12	12.50	2477	46			
220081	001192	368	8.93	9.26	59	0	575N	-4.0	30.0
		235	0.12	13.76	2046	33			
		170	0.11	13.01	2951	46			
220116	001251	171	1.68	12.77	301	0	650D	2.0	34.0
		149	0.11	12.23	3623	32			
		78	0.13	12.06	2927	46			
220215	001563	114	1.40	13.99	148	0	600D	6.0	46.0
		175	0.17	13.91	2474	32			
		130	0.13	13.79	3641	46			
220233	001589	170	1.24	13.87	101	0	900N	-2.0	29.0
		161	0.25	14.23	1902	33			
		97	0.13	13.31	2987	47			
220234	001590	374	2.32	13.03	80	0	450D	0.0	25.0
		151	0.12	12.16	1017	32			
		76	0.15	12.26	1121	47			
220268	001652	107	0.92	13.96	101	0	700N	0.0	35.0
		204	0.19	13.73	1149	32			
		118	0.20	13.33	1295	46			
220282	001745	146	3.17	12.58	121	0	550D	-5.0	33.5
		145	0.17	13.77	1937	31			
		103	0.13	13.54	2872	44			
220322	001809	154	2.01	13.40	81	0	750N	6.0	45.0
		137	0.12	13.28	1410	32			
		120	0.13	13.80	3252	46			
220383	002121	269	1.79	13.42	95	0	950N	10.0	32.0
		184	0.68	14.09	2052	32			
		127	0.38	14.18	3653	46			
220036	001069	90	0.13	13.17	270	0	600D	4.0	35.0
		136	0.16	12.44	1643	32			
		88	0.17	13.08	2621	46			
220327	000822	146	0.95	13.52	259	0	575D	0.0	25.0
		122	0.13	13.56	1970	31			
		145	0.99	13.90	2537	46			
220370	001884	135	6.16	10.81	78	0	500D	8.0	35.0
		146	0.28	14.03	1051	32			
		161	1.02	13.90	1771	45			

TABLE E-3

Los Angeles

LOS ANGELES — 1970 VEHICLES — KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	IRPM	BT	DWL
320076	100219	89	0.11	12.59	3384	46	500D	3.0	31.0
		197	0.10	14.06	3492	30			
		233	5.11	11.20	152	0			
320114	100274	52	0.09	12.93	2282	46	550D	3.0	31.0
		101	0.07	13.72	3031	30			
		129	2.31	12.94	173	0			
320145	100304	87	0.09	12.25	2814	44	550D	3.0	31.0
		145	0.07	13.17	4807	30			
		246	5.77	10.66	123	0			
320166	100364	60	0.10	13.10	3329	45	600N	3.0	33.0
		94	0.10	13.02	2311	30			
		66	0.77	14.28	131	0			
320252	100475	81	0.09	13.69	3762	44	600D	3.0	36.0
		115	0.08	13.57	3692	31			
		150	1.14	13.85	293	0			
320297	100312	30	0.11	13.06	1613	45	600D	2.0	33.0
		47	0.13	14.09	1254	30			
		145	2.14	13.11	217	0			
320309	101408	87	0.09	13.70	4243	44	800N	-3.0	36.0
		138	0.31	14.57	2556	30			
		146	7.30	10.25	87	0			
320382	100796	112	0.11	13.41	4108	45	525N	3.0	33.0
		100	0.38	14.26	2376	31			
		295	10.47	7.45	69	0			
320490	102239	66	0.12	12.90	2907	45	725N	3.0	35.0
		172	0.18	14.33	2337	30			
		120	1.37	13.90	131	0			
320100	100275	63	0.15	14.23	2164	45	550D	3.0	31.0
		34	0.12	13.74	1015	30			
		139	2.10	12.69	216	0			
320310	100548	71	0.12	13.47	2391	45	800N	3.0	34.0
		134	0.23	14.66	1717	31			
		111	3.65	12.28	114	0			
320312	101435	62	0.17	14.42	3163	43	575D	2.5	33.0
		107	1.12	13.92	1258	30			
		96	2.31	12.84	216	0			
320392	101297	93	0.30	14.72	3562	45	400D	-3.0	34.0
		169	3.27	12.70	826	29			
		169	6.12	10.00	118	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA RPM	AT	DWL
320147	100376	72	0.18	13.64	3033	49	7200	5.0	28.0
		76	0.17	13.81	1678	34			
		134	1.43	13.51	231	0			
320159	101358	62	0.17	13.38	1887	45	6250	5.0	31.0
		76	0.17	13.55	995	30			
		181	4.59	11.83	91	0			
320369	100646	71	0.15	13.56	2715	43	6000	5.0	29.0
		90	0.17	13.72	1641	35			
		71	0.26	13.09	215	0			
320491	102387	210	0.67	13.91	3263	45	6750	3.0	30.5
		266	0.53	14.03	2293	29			
		204	3.77	12.20	137	0			
320350	100623	183	0.43	13.57	3163	48	5250	-7.0	28.0
		235	1.13	13.69	1833	33			
		176	7.01	9.41	101	0			
320362	100642	146	0.32	13.61	3923	45	6750	0.0	36.0
		99	0.13	12.76	2072	31			
		49	0.10	12.64	127	0			
320208	100396	108	0.54	13.94	4244	44	8000	2.0	41.0
		134	0.23	14.09	4221	31			
		222	3.69	12.00	128	0			
320358	100647	88	0.57	13.93	3614	45	7500	3.0	49.0
		124	0.47	14.24	2554	31			
		69	0.55	12.74	132	0			
320003	100019	61	0.20	13.89	4252	46	5800	3.0	34.0
		71	0.36	13.22	3794	32			
		115	1.27	13.38	204	0			
320006	100024	129	5.39	11.05	922	45	7600	0.0	34.0
		141	3.28	12.76	1471	31			
		167	7.63	8.82	93	0			
320012	100043	88	0.33	13.77	4245	46	4750	0.0	41.0
		114	0.22	13.82	3473	34			
		308	9.61	8.29	94	0			
320053	100151	92	0.17	13.65	4264	46	5250	5.0	42.0
		131	0.08	13.14	3963	34			
		308	6.73	10.13	132	0			
320060	100125	93	0.71	14.09	3963	51	7504	0.0	52.0
		176	2.52	13.16	1673	35			
		205	6.33	10.68	116	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	RT	DWL
320112	100246	105	0.71	13.97	426	45	790N	0.0	46.0
		120	0.24	14.11	3346	31			
		159	2.18	12.49	217	0			
320243	100415	70	0.14	13.00	4261	46	900N	0.0	46.0
		65	0.09	12.25	1940	30			
		92	0.33	13.31	680	0			
320247	100429	91	0.93	13.93	4221	45	850N	0.0	43.0
		149	2.57	13.07	1327	31			
		196	4.51	11.38	143	0			
320270	100486	98	0.65	13.75	4249	45	600N	0.0	60.0
		105	0.10	13.36	3563	31			
		188	4.09	11.93	153	0			
320333	100582	63	0.40	13.61	4165	45	650N	0.0	42.0
		60	0.11	13.43	3523	31			
		95	3.77	10.34	137	0			
320334	100583	75	0.50	14.08	4200	45	650N	0.0	41.5
		97	0.71	14.16	3272	31			
		142	5.14	10.33	106	0			
320434	101121	51	0.13	13.59	4235	50	925N	2.0	45.0
		91	0.30	14.24	3154	34			
		70	0.17	13.02	327	0			
320439	101142	47	0.30	14.19	4036	49	825N	3.5	44.0
		66	0.38	14.16	2366	34			
		39	0.50	14.71	139	0			
320092	100167	98	0.12	13.55	3984	45	612D	0.0	34.0
		138	0.16	14.03	3039	31			
		133	1.14	14.20	216	0			
320121	100801	117	0.12	13.33	3416	45	775N	0.0	34.0
		142	0.15	13.31	2219	32			
		128	1.06	12.46	171	0			
320135	100276	97	0.18	14.03	2408	44	700N	0.0	30.0
		132	0.13	14.05	2605	30			
		74	0.24	14.17	169	0			
320136	100285	97	0.16	13.00	3015	45	700N	0.0	30.0
		109	0.12	13.03	1884	30			
		59	0.08	11.87	95	0			
320137	100303	88	0.12	11.44	2987	45	770N	0.0	29.0
		95	0.12	11.73	1879	33			
		58	0.12	13.15	164	0			

LOS ANGELES

1970 VEHICLES

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320138	100319	90	0.15	12.34	2884	44	700*	6.0	29.0
		47	0.13	12.46	157[illegible]	30			
		57	0.10	13.72	19[illegible]	0			
320139	100334	67	0.18	13.74	1732	44	600*	0.0	32.0
		64	0.12	13.34	817	31			
		105	0.53	13.63	151	0			
320140	100345	111	0.16	13.22	3542	45	700*	0.0	28.0
		132	0.16	13.17	2003	31			
		113	0.70	12.98	122	0			
320141	100363	89	0.14	13.77	3634	44	700*	0.0	30.0
		96	0.12	13.43	2406	31			
		94	0.39	14.36	131	0			
320142	100380	115	0.21	14.12	4839	45	750*	0.0	31.0
		123	0.12	14.04	2582	30			
		100	0.85	14.24	163	0			
320211	101365	139	1.48	13.70	2374	44	750*	1.0	30.0
		163	1.19	14.05	1776	30			
		120	2.45	13.11	125	0			
320246	100414	72	0.18	13.44	2731	40	700*	0.0	34.0
		115	0.13	13.24	2885	35			
		70	0.11	13.33	187	0			
320261	100769	113	0.18	14.01	3630	44	675*	7.0	32.0
		136	0.11	13.89	2998	31			
		82	0.34	14.12	193	0			
320285	101265	83	0.13	13.30	2017	40	750*	2.5	33.0
		129	0.15	14.16	2729	34			
		224	6.39	10.20	112	0			
320340	101238	91	0.13	13.19	3217	40	700*	0.0	31.0
		151	0.11	12.91	3445	35			
		146	2.81	11.81	138	0			
320395	100795	110	0.15	13.75	3907	45	650*	0.0	34.0
		141	0.29	14.52	2582	31			
		242	0.12	8.79	96	0			
320419	101364	80	0.17	13.30	3569	44	700*	0.0	28.0
		150	0.12	13.64	2261	30			
		105	0.14	13.93	149	0			
320485	101724	73	0.45	14.53	2687	50	700*	7.0	32.0
		110	0.59	14.80	2023	33			
		71	1.54	14.28	67	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320497	105119	113	1.65	12.63	1954	45	750N	0.0	.
		163	5.13	10.65	209	30			
		204	5.36	10.38	123	0			
320503	104127	45	0.12	11.15	2507	44	700D	0.0	.
		57	0.10	10.58	1094	30			
		53	0.07	10.48	94	0			
320504	104129	97	0.19	13.53	4275	45	700D	0.0	32.0
		138	0.17	13.85	3375	31			
		158	2.72	12.88	202	0			
320122	100243	90	0.43	13.07	2815	49	700N	1.0	35.0
		199	0.11	12.33	1635	34			
		170	0.65	13.02	111	0			
320148	100262	98	0.26	13.81	3739	49	600D	3.0	30.0
		110	0.11	13.03	2435	35			
		153	5.89	10.98	91	0			
320227	100401	80	0.31	13.41	3365	49	950D	2.5	34.0
		71	0.12	12.66	1734	35			
		196	0.90	12.31	200	0			
320242	100417	146	2.13	13.30	2566	49	690N	4.5	37.0
		190	1.90	13.73	1608	34			
		229	7.13	10.16	95	0			
320292	101338	91	0.35	13.74	3653	48	675N	2.0	35.0
		81	0.14	12.83	1838	35			
		44	0.16	14.19	86	0			
320381	100823	141	1.82	12.21	1934	48	650N	2.5	30.0
		121	0.50	13.54	1479	34			
		114	0.09	13.86	292	0			
320385	100915	67	0.27	13.30	3167	49	775D	3.0	28.0
		100	0.24	12.32	1729	35			
		235	3.93	10.69	137	0			
320399	101363	83	0.63	14.00	3579	49	625D	3.0	31.0
		93	0.14	13.36	3106	34			
		121	3.47	12.48	105	0			
320404	101345	64	0.41	13.60	3346	50	560D	3.0	38.0
		101	0.12	12.08	1379	33			
		75	0.28	13.04	104	0			
320407	101464	69	0.43	13.62	4008	49	625N	3.0	31.0
		97	0.12	13.14	3005	33			
		82	0.58	13.54	136	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	AT	DWL
320023	100059	112	0.87	14.16	2712	50	485D	0.0	28.5
		117	0.67	13.97	1875	35			
		226	7.46	9.46	73	0			
320040	100130	103	0.43	14.42	3302	49	740N	5.0	30.5
		102	0.52	13.97	1999	34			
		126	0.74	14.40	291	0			
320368	100667	114	2.00	13.48	2540	49	800N	5.0	35.0
		113	1.73	13.27	1759	35			
		128	4.36	11.95	137	0			
320383	100865	142	0.83	13.48	2309	44	575D	6.0	28.0
		135	0.13	12.83	2214	32			
		130	0.13	13.17	72	0			
320201	100387	119	0.97	13.96	2858	49	750N	2.5	32.0
		132	1.22	13.40	1744	34			
		146	5.09	11.21	94	0			
320245	100416	129	1.26	13.93	2608	47	680N	0.0	39.5
		121	0.58	14.04	2058	33			
		187	5.99	10.72	94	0			
320048	100640	113	1.33	13.81	2083	49	775N	3.0	26.0
		105	0.38	14.35	1668	35			
		104	3.83	10.20	82	0			
320244	100415	71	0.64	14.65	1262	50	950N	0.0	30.0
		168	1.99	13.66	727	35			
		243	4.75	11.58	92	0			
320018	100053	86	0.31	13.80	3577	48	615N	5.0	34.0
		62	0.15	12.36	1394	32			
		46	0.10	13.13	156	0			
320436	101174	121	1.99	13.33	2119	49	800N	8.0	29.0
		62	0.14	13.16	2016	35			
		124	5.76	10.16	91	0			
320447	101198	122	2.27	13.28	2126	47	750N	3.0	31.0
		69	0.13	13.40	1795	35			
		159	3.48	12.16	100	0			
320062	100347	255	0.99	13.23	4262	35	600D	6.0	30.0
		239	0.08	12.59	2394	23			
		60	0.17	14.05	146	0			
320349	100617	256	0.23	13.93	3600	39	725N	6.0	43.0
		237	0.47	14.15	1088	25			
		172	5.09	11.25	114	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320377	100950	161	0.10	12.20	3466	36	500D	0.0	39.0
		185	0.15	13.21	2078	24			
		248	6.60	9.71	121	0			
320386	100800	165	0.12	12.40	1887	37	875N	8.0	45.0
		187	0.10	13.59	795	21			
		47	0.16	14.26	179	0			
320388	100825	166	0.12	13.43	2832	36	550N	6.0	32.0
		260	0.14	13.45	1673	23			
		250	6.05	10.34	91	0			
320378	100765	145	0.11	13.62	3712	44	575D	6.0	36.0
		204	0.11	13.11	3584	31			
		185	3.45	12.63	150	0			
320026	100069	174	0.10	13.48	4231	39	600D	6.0	29.0
		170	0.10	12.79	1666	24			
		389	7.07	9.78	111	0			
320096	100169	223	0.14	12.90	3242	36	750N	6.0	30.0
		244	0.13	12.55	1701	24			
		173	4.66	8.33	80	0			
320115	100216	135	0.11	12.62	2950	35	500D	6.0	30.0
		165	0.10	13.47	2790	27			
		151	2.95	12.57	138	0			
320225	100430	183	0.11	13.37	4102	38	625D	6.0	38.0
		194	0.11	13.94	2885	25			
		210	5.67	10.97	124	0			
320229	100442	174	0.11	13.05	4273	38	700D	6.0	41.5
		202	0.11	13.52	2229	24			
		168	3.76	12.04	183	0			
320268	100602	180	0.15	14.26	4127	38	625N	6.0	35.5
		149	0.09	13.37	1346	24			
		120	3.04	12.51	105	0			
320325	100616	199	0.13	14.45	4169	38	850N	6.0	42.0
		177	0.88	14.49	939	24			
		121	5.25	11.58	112	0			
320394	101070	95	0.24	13.41	3630	45	650D	9.0	42.0
		176	0.67	14.00	2234	31			
		261	8.07	9.59	98	0			
320027	100687	214	0.16	13.44	4003	44	525D	6.0	31.0
		242	0.20	13.52	2630	31			
		202	0.42	14.61	202	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320044	100111	189	0.13	13.43	4248	45	5700	6.0	27.0
		208	0.24	14.19	2002	31			
		248	4.61	11.92	130	0			
320082	100346	73	0.18	13.85	1531	50	6000	6.0	29.0
		58	0.20	14.17	869	35			
		250	6.72	10.68	114	0			
320125	100242	43	0.14	13.17	1174	49	6400	0.0	45.0
		23	0.09	13.25	517	33			
		99	0.78	14.44	274	0			
320149	100278	175	0.26	13.62	2497	45	8000	6.0	30.0
		134	0.61	13.69	1012	31			
		106	0.81	14.19	239	0			
320159	100290	140	0.12	10.42	2095	46	6000	6.0	30.0
		108	0.14	12.51	918	31			
		84	0.13	13.13	237	0			
320160	100289	173	0.30	13.34	3344	49	6000	6.0	30.0
		177	0.20	13.79	2045	33			
		124	0.20	14.35	267	0			
320167	100361	219	1.24	12.56	2083	50	4250	6.0	32.5
		210	1.36	12.64	962	36			
		143	5.12	10.73	34	0			
320214	100546	12	0.13	11.68	2574	50	6500	6.0	32.0
		3	0.14	11.29	1954	35			
		1	1.33	11.12	202	0			
320275	100469	184	0.25	13.57	3459	45	5000	6.0	30.0
		178	0.19	14.13	1867	31			
		332	0.11	9.24	75	0			
320284	100505	159	0.25	13.60	3175	45	6000	6.0	33.0
		105	0.20	13.85	1121	32			
		87	0.52	14.53	268	0			
320371	100109	193	0.27	13.96	3352	48	6300	6.0	32.0
		144	0.29	14.46	1021	31			
		100	0.46	14.78	244	0			
320379	100793	209	0.17	13.72	3921	49	6000	6.0	31.0
		205	0.24	14.02	2203	35			
		166	0.72	14.11	289	0			
320396	100792	123	0.15	13.35	2610	49	6000	6.0	30.0
		92	0.14	13.49	991	35			
		131	0.21	14.34	185	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320397	100797	249	0.30	13.47	3103	45	6000	6.0	30.0
		197	0.36	13.97	1280	32			
		280	6.72	10.43	117	0			
320057	100379	149	0.82	14.06	2837	45	5900	6.0	31.5
		167	0.79	14.61	1736	30			
		322	10.11	8.64	77	0			
320069	100186	176	0.44	14.37	3427	50	5750	10.0	32.0
		198	0.27	14.33	2966	35			
		248	3.98	12.56	114	0			
320072	100128	133	0.18	13.70	3901	49	6000	8.0	34.0
		176	0.18	13.42	3430	34			
		94	0.21	14.52	469	0			
320073	100126	159	0.54	13.62	3342	49	5250	4.0	43.0
		224	0.39	14.12	3281	35			
		308	8.01	9.90	98	0			
320080	100170	123	0.78	13.75	2730	49	6000	6.0	34.0
		127	0.21	13.66	2225	35			
		212	3.50	12.59	114	0			
320090	100221	118	0.23	14.32	3302	50	6000	8.0	32.0
		160	0.52	14.01	2526	36			
		196	9.93	8.97	89	0			
320129	100228	150	0.39	13.93	3233	50	5250	10.0	30.0
		204	0.52	14.25	2550	35			
		276	10.84	8.24	74	0			
320174	100343	123	0.14	13.96	3179	50	7000	6.0	29.0
		158	0.22	13.85	2501	36			
		229	3.06	13.00	160	0			
320213	100398	106	0.24	14.09	3003	50	6000	8.0	32.0
		172	0.18	14.14	3025	35			
		155	4.59	12.15	146	0			
320228	100547	99	0.15	13.84	3183	49	6000	8.0	32.0
		158	0.22	14.03	2743	35			
		235	7.48	10.16	113	0			
320236	100426	112	0.21	13.88	3315	49	5750	6.0	32.5
		114	0.17	13.74	2047	35			
		263	6.82	10.33	114	0			
320256	101197	86	0.16	13.64	3342	50	5900	11.0	30.0
		158	0.29	14.07	3678	34			
		210	6.70	10.70	137	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320273	100489	77	0.22	13.82	3064	44	650D	6.0	32.0
		86	0.14	13.69	2170	32			
		98	0.52	13.77	245	0			
320295	100591	111	0.44	13.67	3218	50	600D	6.0	32.0
		132	0.78	13.75	1910	35			
		289	8.08	9.60	97	0			
320301	100864	133	0.60	13.11	2301	49	575D	6.0	28.0
		154	0.24	13.19	2037	35			
		260	3.71	11.24	125	0			
320337	100605	146	0.27	14.20	3232	48	550D	6.0	28.5
		196	0.18	14.00	3020	33			
		87	0.16	14.35	376	0			
320405	100890	95	0.40	14.17	2433	49	650D	6.0	32.0
		158	0.69	14.20	1810	35			
		125	1.88	13.47	218	0			
320431	100944	114	0.24	13.81	3124	45	650D	4.0	30.0
		90	0.14	13.59	1060	23			
		117	0.13	13.96	233	0			
320008	100033	109	0.53	13.16	2285	50	505D	5.0	30.0
		155	0.15	13.86	2295	33			
		216	4.45	12.08	111	0			
320011	100042	71	0.34	13.70	1626	50	650D	5.0	29.0
		56	0.16	13.71	893	34			
		104	0.16	13.29	294	0			
320019	100054	197	2.22	13.33	2115	49	600D	-4.0	28.0
		163	0.22	14.33	2264	34			
		189	3.74	12.58	117	0			
320104	100259	109	0.16	13.52	3337	50	600D	6.0	30.0
		126	0.15	13.44	2135	34			
		98	0.10	14.09	224	0			
320126	100247	136	0.28	13.76	3234	49	620D	8.0	32.0
		149	0.12	13.60	2485	35			
		164	2.46	12.60	132	0			
320143	100332	93	0.13	13.44	2986	51	600D	4.5	29.0
		120	0.17	13.66	2101	35			
		68	0.08	13.71	153	0			
320154	100320	78	0.14	13.54	3009	51	600D	6.0	29.0
		102	0.20	13.50	1995	36			
		61	0.09	13.31	193	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320173	100317	132	0.27	13.76	3867	51	600D	6.0	30.0
		150	0.11	13.72	2966	35			
		245	6.26	10.75	109	0			
320203	100383	88	0.26	13.79	1343	50	525D	6.0	30.0
		181	1.03	14.21	675	35			
		371	10.33	8.19	55	0			
320237	100412	52	0.17	13.72	2080	50	725D	6.0	29.5
		59	0.18	13.62	1244	35			
		91	0.16	14.12	445	0			
320204	100461	131	0.39	13.93	2725	49	600D	4.0	32.0
		86	0.15	13.55	1222	35			
		213	4.48	11.97	132	0			
320241	100410	120	0.53	13.88	2456	50	600D	4.0	29.0
		79	0.18	13.77	1388	34			
		175	5.28	11.47	138	0			
320248	100427	130	0.61	13.62	3756	49	650D	4.0	32.0
		120	0.19	13.56	2957	35			
		65	0.32	14.65	359	0			
320269	100400	111	0.14	13.34	3698	48	800N	6.0	38.0
		109	0.15	12.36	1897	35			
		183	5.85	10.98	63	0			
320426	100995	81	0.19	13.30	3187	48	625D	4.0	29.0
		150	0.13	13.46	3236	35			
		323	3.29	12.44	134	0			
320435	101069	54	0.13	13.03	2123	48	800N	6.0	38.0
		76	0.13	12.59	1046	34			
		68	0.39	14.60	54	0			
320035	100105	101	0.17	13.53	4263	45	600D	-7.0	32.0
		144	0.44	14.09	3823	35			
		345	10.95	7.26	62	0			
320047	100337	141	0.09	13.55	4271	44	800N	5.0	24.5
		193	0.35	14.52	2978	32			
		230	7.19	10.39	98	0			
320079	100411	95	0.24	13.75	4254	46	620D	6.0	39.0
		146	0.31	14.38	3594	33			
		103	3.00	12.92	178	0			
320357	100631	103	0.27	13.68	3901	46	625D	2.0	41.0
		166	0.59	14.19	2628	30			
		133	5.23	11.03	140	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320013	100047	86	0.27	13.33	3201	49	550D	0.0	26.0
		167	0.73	12.50	1459	34			
		171	1.51	13.38	257	0			
320315	100564	132	0.42	13.60	2903	49	550D	6.5	32.0
		145	0.17	13.40	2237	35			
		197	2.97	12.88	221	0			
320420	101177	117	0.22	13.91	2910	44	675N	4.0	33.0
		50	0.12	13.18	516	30			
		37	0.11	9.09	85	0			
320255	100477	94	0.48	13.85	3335	50	525D	6.0	29.5
		100	0.31	13.98	2025	35			
		185	3.83	9.03	94	0			
320411	101438	58	0.63	13.37	1769	49	575D	6.0	29.0
		59	0.16	13.74	1231	34			
		182	4.07	12.19	79	0			
320430	100331	48	0.19	14.15	2485	50	700N	3.0	31.0
		56	0.29	13.88	1153	34			
		31	0.10	13.48	104	0			
320446	101323	105	3.96	10.74	833	50	725N	6.0	29.0
		63	0.52	11.48	816	34			
		145	4.97	10.19	32	0			
320002	100018	150	0.36	14.05	3593	49	540D	3.5	30.0
		152	0.37	13.93	2165	34			
		54	0.20	14.54	459	0			
320009	100034	156	0.29	14.35	3406	50	560D	4.0	30.5
		138	0.21	14.39	1714	34			
		147	4.09	12.50	139	0			
320016	100051	103	0.53	13.63	2252	51	580D	10.0	34.0
		99	0.43	13.76	1198	36			
		72	1.24	14.14	262	0			
320049	100149	106	0.49	13.01	2002	49	525D	4.0	32.0
		116	0.18	13.57	1884	35			
		46	0.21	14.45	306	0			
320088	100150	78	0.19	13.80	2125	48	525D	4.0	32.0
		101	0.17	13.67	1471	34			
		150	5.31	11.46	115	0			
320283	100580	125	1.00	12.63	2272	50	600D	4.0	30.0
		75	0.21	11.33	1399	35			
		70	0.16	11.83	279	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320452	101460	100	0.42	13.30	2994	47	600D	4.0	32.0
		64	0.12	13.06	927	32			
		103	0.09	13.92	350	0			
320281	100630	30	0.35	14.46	1999	45	500D	2.0	32.0
		31	0.16	12.95	901	31			
		260	10.84	8.07	70	0			
320354	100653	108	0.13	13.30	3380	45	700N	0.0	34.0
		161	0.32	14.46	1484	32			
		153	6.45	10.72	105	0			
320356	100650	118	0.16	14.10	3750	44	750N	2.0	34.0
		202	0.24	14.24	1847	30			
		138	4.64	11.74	100	0			
320185	100470	27	0.17	13.02	1783	49	800D	4.0	37.7
		91	0.17	12.70	2173	35			
		227	4.80	10.80	120	0			
320249	100447	41	0.13	12.64	2184	45	625D	0.0	35.0
		86	0.12	13.05	2313	31			
		225	6.30	10.80	108	0			
320321	100575	87	0.13	12.93	2596	45	500D	4.0	34.0
		77	0.11	12.39	1222	32			
		91	0.26	14.03	302	0			
320406	100892	46	0.13	12.89	2163	45	625D	3.0	35.0
		112	0.12	14.07	2143	31			
		173	5.34	11.26	127	0			
320421	101410	21	0.13	13.11	1785	48	625D	-4.0	37.0
		55	0.12	13.92	1645	34			
		138	4.54	11.79	83	0			
320427	101076	31	0.12	13.79	2722	44	650D	1.0	35.0
		43	0.12	12.98	1077	29			
		140	4.22	11.93	113	0			
320428	101147	42	0.12	13.67	3495	49	500D	0.0	35.0
		68	0.11	13.40	2640	35			
		186	5.56	10.97	115	0			
320429	101171	44	0.14	12.89	1977	43	575D	0.0	37.0
		113	0.14	13.71	1835	30			
		207	4.84	11.63	110	0			
320480	101465	49	0.15	13.30	3183	44	750N	1.0	37.5
		115	0.29	14.21	2000	30			
		92	6.54	10.68	93	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320484	101683	76	0.54	14.83	2241	45	575D	4.0	32.0
		34	0.12	12.54	412	30			
		90	0.22	14.84	397	0			
320487	101860	103	0.11	14.38	3590	45	700N	0.0	28.0
		223	0.53	14.58	1960	30			
		176	5.55	11.35	61	0			
320488	101859	27	0.13	13.19	2303	49	625N	0.0	35.0
		111	0.21	14.56	1823	33			
		148	8.01	10.24	53	0			
320489	101877	32	0.09	12.23	429	44	700N	2.0	35.0
		83	0.13	13.56	949	31			
		188	7.89	10.22	52	0			
320043	100196	163	0.10	13.12	4101	46	600D	9.0	28.0
		214	0.10	13.32	3172	31			
		286	2.85	12.88	178	0			
320150	100277	165	0.46	14.40	2880	45	600D	8.0	30.0
		201	0.13	13.95	2356	30			
		181	0.10	14.03	358	0			
320156	100336	159	0.30	13.52	2972	46	430D	8.0	33.5
		228	0.21	14.40	2400	30			
		357	7.02	10.43	98	0			
320182	100368	154	0.27	13.59	3686	50	625D	8.0	28.0
		205	0.15	13.83	3246	35			
		424	6.79	10.23	131	0			
320188	100370	119	0.29	14.19	3569	49	400D	8.0	30.0
		139	0.15	13.36	2728	35			
		222	2.69	13.01	166	0			
320193	100391	79	0.23	14.07	2424	50	650D	10.0	30.0
		64	0.10	13.08	959	34			
		184	0.78	14.03	232	0			
320231	101220	79	0.20	13.03	4049	49	650N	11.0	32.0
		108	0.16	13.20	2579	35			
		101	0.35	12.87	94	0			
320286	100493	120	0.35	13.65	3244	45	525D	8.0	29.0
		136	0.11	13.23	2216	31			
		210	2.48	13.05	129	0			
320288	100496	179	1.30	13.31	2397	44	680D	10.0	31.0
		225	0.30	14.09	2338	31			
		286	4.57	11.91	141	0			

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CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	KEYMODE TEST DATA IRPM	BT	DWL
320289	100520	140	0.19	13.63	4202	49	600D	8.0	30.5
		190	0.16	13.91	3578	35			
		321	6.74	10.38	119	0			
320291	100549	156	0.78	12.98	3268	49	700D	8.0	28.0
		206	0.13	13.91	3664	35			
		341	6.29	10.72	129	0			
320299	100534	109	0.10	12.82	3412	44	750D	10.0	30.0
		136	0.10	11.94	1439	31			
		131	0.08	13.13	567	0			
320330	100626	122	0.46	13.75	3723	45	600D	9.0	31.0
		187	0.20	14.26	3144	31			
		334	8.29	9.47	107	0			
320374	100721	115	0.16	13.32	4266	45	600D	10.0	30.5
		152	0.12	13.13	3464	31			
		196	0.67	14.03	412	0			
320402	100824	145	0.22	13.16	3739	49	975D	3.0	30.0
		176	0.17	13.37	2364	35			
		253	1.93	13.16	118	0			
320449	101623	79	0.54	11.42	3296	49	700N	2.0	30.0
		102	0.22	9.68	2280	33			
		64	0.82	8.87	42	0			
320450	101436	105	0.33	13.57	2707	45	675N	8.0	30.0
		242	0.16	13.98	1470	29			
		401	9.75	8.77	56	0			
320455	101513	110	0.23	14.21	3598	44	650N	7.5	30.0
		144	0.18	14.15	1658	29			
		128	3.21	12.69	106	0			
320456	101591	63	0.25	10.81	2813	49	700N	3.0	38.0
		86	0.14	8.87	1559	33			
		62	1.37	9.56	32	0			
320496	104116	92	0.15	11.88	2610	49	600D	-8.0	30.0
		129	0.13	11.95	1641	34			
		351	2.63	11.69	242	0			
320498	104118	104	0.16	12.69	2612	45	600D	8.0	32.0
		143	0.16	12.69	1392	30			
		208	2.32	12.08	171	0			
320499	104124	113	0.30	13.69	3997	49	600D	4.0	.
		156	0.59	13.20	2929	33			
		227	3.99	11.89	156	0			

LOS ANGELES

CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	PT	DWL
320500	104126	117	0.10	12.71	4054	49	575D	4.0	30.0
		176	0.10	13.03	3345	33			
		278	4.63	11.06	172	0			
320021	100057	62	0.13	13.37	2091	49	630D	4.0	28.0
		75	0.12	13.59	1252	35			
		132	0.64	14.45	292	0			
320033	100090	171	0.16	13.50	4262	50	480D	6.0	28.0
		217	0.11	13.30	3897	35			
		378	6.32	10.17	109	0			
320041	100231	157	0.46	13.66	4266	50	560D	4.0	30.0
		190	0.19	14.16	3864	36			
		212	4.38	11.87	141	0			
320050	100124	142	0.11	13.27	4264	50	600D	0.0	56.0
		191	0.17	13.35	3278	32			
		226	5.36	11.18	134	0			
320081	100232	82	0.10	12.66	3333	50	600D	4.0	30.0
		89	0.09	12.88	2400	36			
		168	2.87	13.04	150	0			
320133	100110	157	0.24	13.62	4209	48	575D	2.0	33.0
		180	0.12	13.57	3293	34			
		418	5.33	10.80	110	0			
320157	100348	146	0.18	13.64	4271	48	600D	4.0	29.5
		164	0.10	12.94	3749	35			
		124	0.40	13.85	309	0			
320168	100503	136	0.10	13.35	4192	45	600D	4.0	32.0
		212	0.47	14.19	3401	31			
		181	1.15	13.87	168	0			
320192	100375	45	0.18	13.53	1532	45	640D	4.0	29.0
		38	0.13	13.11	843	35			
		191	2.77	12.55	200	0			
320202	100390	133	0.11	13.51	4263	49	650D	4.0	30.5
		149	0.10	12.78	3319	34			
		125	0.34	13.09	182	0			
320220	100535	131	0.14	13.32	4059	50	650D	6.0	29.5
		160	0.13	13.34	2793	35			
		305	8.30	9.46	83	0			
320303	100517	154	0.55	13.95	3287	44	975N	4.0	29.0
		144	0.13	13.75	2173	31			
		161	5.94	9.61	94	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320316	100589	128	0.15	13.79	3388	50	600D	4.0	30.0
		138	0.09	13.30	2717	35			
		210	6.06	10.62	99	0			
320317	100581	126	0.14	13.45	3852	49	600D	4.0	32.0
		152	0.10	13.44	2842	35			
		241	6.22	10.56	105	0			
320328	100618	129	0.10	12.69	3680	49	600D	4.0	30.0
		158	0.10	12.53	3317	34			
		180	2.07	13.45	213	0			
320329	100608	154	0.14	13.94	3545	49	575D	4.0	29.0
		192	0.21	14.31	2941	35			
		291	8.23	9.64	94	0			
320005	100022	141	0.43	14.08	3223	51	600D	2.0	29.5
		126	0.11	13.15	2036	35			
		221	4.91	11.64	128	0			
320015	100050	89	0.16	13.63	3634	44	600D	4.0	29.0
		86	0.09	12.63	1802	33			
		112	0.87	14.21	315	0			
320030	100087	147	0.31	13.85	3478	47	550D	4.0	40.0
		154	0.12	13.18	2221	31			
		175	2.34	13.14	182	0			
320031	100088	153	0.44	13.63	3333	50	540D	4.0	30.0
		163	0.13	12.88	2318	36			
		226	3.24	11.88	123	0			
320036	100153	143	0.29	13.72	3972	49	600D	4.0	30.0
		158	0.13	12.95	2918	35			
		212	3.83	12.44	169	0			
320046	100129	98	0.27	13.70	2986	45	590N	1.0	28.0
		206	2.49	12.95	894	23			
		234	9.24	7.80	65	0			
320093	100185	104	0.16	13.13	3909	48	550D	5.0	29.0
		102	0.10	11.41	1911	34			
		212	5.58	8.30	79	0			
320110	100218	130	0.18	14.01	3765	50	425D	4.0	30.0
		160	0.12	13.91	3071	36			
		245	7.17	9.61	108	0			
320113	100263	127	0.14	13.79	3504	49	720D	4.0	30.5
		151	0.21	13.70	2391	35			
		202	5.53	11.24	124	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320116	100261	92	0.16	13.64	3135	50	2500	4.0	28.0
		144	0.61	13.89	2293	35			
		162	2.13	13.23	187	0			
320177	100394	126	0.23	13.46	3544	49	5750	4.0	27.0
		179	0.23	13.68	2944	35			
		448	5.55	10.75	122	0			
320180	100365	102	0.38	14.17	3102	50	6600	4.0	31.5
		89	0.13	12.89	1474	34			
		78	0.10	14.56	258	0			
320194	100378	125	0.35	14.41	3540	50	6100	4.0	29.0
		104	0.10	12.53	1765	35			
		123	0.44	14.71	242	0			
320195	100377	63	0.99	14.13	1574	49	5250	4.0	30.0
		44	0.54	13.79	792	35			
		95	0.40	13.84	289	0			
320196	100373	115	0.24	14.22	3571	51	4100	4.0	29.0
		101	0.10	12.01	1142	34			
		160	2.27	13.29	123	0			
320197	100372	125	0.70	13.86	3106	50	5750	4.0	31.0
		119	0.10	13.34	2408	36			
		286	2.11	13.92	447	0			
320198	100371	105	0.15	14.08	3847	50	5500	4.0	30.0
		90	0.09	12.02	1234	35			
		202	3.95	12.13	110	0			
320199	100386	106	0.16	13.84	3322	50	6750	4.0	31.0
		103	0.12	12.83	1668	35			
		98	0.17	14.29	235	0			
320200	100389	119	0.16	14.32	3900	50	4250	4.0	30.0
		157	0.10	11.93	1522	34			
		1591	0.64	9.79	227	0			
320226	100595	129	0.48	14.38	3014	45	7500	0.0	32.0
		228	3.47	12.76	889	31			
		289	10.61	8.39	74	0			
320326	100588	110	0.31	14.55	3655	51	6000	4.0	30.0
		106	0.09	13.23	2912	35			
		131	1.43	14.03	181	0			
320338	100598	120	0.09	14.07	3705	50	6500	4.0	30.0
		133	0.09	13.88	3163	45			
		210	7.66	9.66	80	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320345	100611	98	0.23	13.02	2758	49	725D	4.0	31.0
		120	0.62	12.76	2086	34			
		69	0.57	12.36	279	0			
320376	100722	173	0.82	13.88	3036	49	525N	0.0	28.0
		178	0.21	13.81	2346	34			
		203	6.82	9.88	94	0			
320501	104123	96	0.14	12.97	3578	49	600D	4.0	.
		110	0.10	12.61	2247	33			
		129	1.64	13.32	213	0			
320004	100016	79	0.67	14.30	2347	50	590D	9.0	29.0
		54	0.14	13.80	1314	35			
		290	6.90	10.32	111	0			
320085	100220	92	0.86	14.12	1424	50	490D	5.0	31.0
		29	0.13	13.60	768	36			
		102	0.09	13.20	180	0			
320207	100393	103	0.91	14.14	2855	51	625D	8.0	30.5
		89	0.14	14.40	1967	35			
		189	5.84	10.94	104	0			
320274	101556	97	1.47	13.98	2392	49	700D	8.0	29.0
		71	0.11	14.11	1782	34			
		119	2.70	13.25	144	0			
320324	100614	92	1.08	14.31	2628	49	650D	4.0	28.0
		83	0.16	14.22	2256	34			
		171	4.62	12.03	139	0			
320441	101124	96	1.69	13.65	2684	50	525D	8.0	27.0
		108	0.42	14.54	2409	35			
		389	10.99	7.97	52	0			
320443	101555	114	1.69	13.60	2489	49	600D	6.0	30.0
		136	1.10	14.20	1953	34			
		264	10.02	8.82	63	0			
320089	100287	94	0.19	14.24	2860	49	650D	4.0	30.0
		101	0.16	14.21	1489	35			
		174	6.10	10.53	92	0			
320432	100951	93	0.13	13.22	3075	50	950N	11.0	29.0
		104	0.12	13.31	1410	34			
		186	5.31	10.65	100	0			
320437	101344	94	0.16	13.35	2545	50	545D	4.0	28.0
		93	0.16	13.36	955	34			
		196	5.49	10.43	68	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320010	100038	26	0.12	13.36	1170	49	525D	5.0	26.5
		20	0.10	13.13	373	34			
		251	6.77	10.35	73	0			
320232	100404	120	0.15	13.41	3395	49	860N	8.0	30.0
		91	0.14	13.63	1000	34			
		98	1.81	13.72	113	0			
320028	100070	57	0.27	13.11	1913	50	650D	-9.0	30.0
		88	0.45	14.16	1439	34			
		320	5.63	10.94	139	0			
320032	100089	130	0.18	13.92	3990	48	575D	9.0	30.0
		136	0.16	13.80	2233	34			
		164	1.07	14.10	236	0			
320170	100360	108	0.12	13.37	4181	49	650D	8.5	30.0
		128	0.14	13.12	2583	34			
		95	0.31	14.10	472	0			
320176	100344	152	0.19	13.72	4019	49	650D	8.0	29.5
		165	0.70	13.26	2141	35			
		276	6.25	10.82	133	0			
320186	100362	114	0.19	13.82	3445	50	700D	9.0	33.0
		114	0.16	13.63	2080	35			
		135	1.05	14.37	410	0			
320271	100474	135	0.35	13.93	4083	49	700D	9.0	30.0
		190	1.32	13.58	2600	35			
		182	2.43	12.65	265	0			
320318	100593	135	0.30	13.61	3429	50	650D	9.0	30.0
		178	0.68	13.68	2231	35			
		203	2.34	12.96	207	0			
320384	100887	141	0.45	14.12	3563	50	700D	2.0	32.0
		167	0.52	13.91	2294	34			
		340	3.43	12.43	369	0			
320413	101018	143	0.28	14.15	3947	48	525D	8.0	29.0
		147	0.24	13.82	2533	33			
		186	1.70	13.64	198	0			
320493	104115	100	0.69	14.07	3612	49	D	.	.
		148	1.97	13.60	1624	33			
		207	5.18	11.63	147	0			
320037	100168	88	0.33	13.98	2961	50	625D	9.0	30.0
		145	0.81	13.94	2303	35			
		160	2.03	13.23	262	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320094	100195	133	0.11	12.62	2929	50	625D	9.0	30.0
		176	0.14	13.28	2527	36			
		165	1.39	13.73	259	0			
320209	100399	129	0.15	13.77	4193	50	670D	8.5	28.0
		131	0.11	13.39	2696	35			
		133	0.19	14.45	238	0			
320240	101314	119	0.15	13.46	4032	50	650D	9.0	30.0
		207	1.62	12.96	2690	34			
		198	4.21	11.89	164	0			
320347	101343	119	0.18	13.47	3538	49	675D	8.0	31.0
		169	0.46	14.05	2326	33			
		198	4.76	11.55	144	0			
320448	101340	97	0.10	12.92	3712	49	600D	11.0	31.0
		168	0.46	14.02	2944	34			
		152	2.02	13.31	173	0			
320482	101514	172	3.88	12.47	1219	50	675D	9.0	30.0
		164	0.58	14.12	2213	33			
		163	4.73	11.83	110	0			
320058	100152	43	0.16	13.50	743	49	1000N	18.0	28.0
		221	0.15	13.25	297	35			
		1958	1.57	11.09	84	0			
320187	100516	119	0.15	13.06	3302	50	1000N	9.5	34.0
		142	0.17	13.43	1598	35			
		48	0.27	13.75	120	0			
320205	100384	90	0.13	12.80	2632	48	690D	9.0	29.0
		108	0.13	12.88	2255	36			
		169	2.24	12.29	121	0			
320210	100395	100	0.13	13.37	3228	48	1000N	.	30.0
		112	0.13	13.68	1680	33			
		192	0.47	14.17	891	0			
320322	100579	104	0.11	12.77	2744	50	650D	9.0	30.0
		104	0.11	12.97	1603	35			
		80	0.09	12.55	111	0			
320370	100826	124	0.12	13.71	3191	49	650D	8.5	31.0
		132	0.21	14.24	1357	34			
		272	7.09	9.66	62	0			
320425	101291	130	0.57	14.52	2931	49	600D	9.0	30.0
		158	1.43	13.64	844	34			
		138	1.10	13.70	108	0			

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CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320483	101622	41	0.09	13.65	3901	49	750D	7.0	32.0
		44	0.09	13.58	1740	33			
		99	2.43	12.98	92	0			
320029	100086	60	0.10	11.43	1747	49	550D	8.0	30.0
		72	0.09	11.64	956	34			
		140	2.30	12.01	115	0			
320306	100563	77	0.09	13.06	2875	50	650D	9.0	30.0
		85	0.09	13.09	2018	35			
		106	0.09	12.03	267	0			
320387	100798	75	0.13	13.53	2782	49	650D	9.0	31.0
		72	0.11	13.50	1387	34			
		63	0.25	13.65	104	0			
320481	101487	78	0.14	14.03	3447	47	700D	8.0	29.5
		116	0.46	13.70	2064	33			
		192	4.88	11.28	85	0			
320179	100374	39	0.15	13.79	1602	49	580D	10.0	30.0
		63	0.63	14.11	928	35			
		222	4.90	11.77	118	0			
320253	100707	50	0.28	14.09	1810	49	750D	9.0	30.0
		63	0.54	14.07	904	34			
		138	1.63	13.61	148	0			
320302	101285	94	0.46	14.30	2648	49	575D	10.0	30.0
		141	0.50	13.98	2031	34			
		119	2.82	13.03	142	0			
320304	101322	74	0.15	13.73	2751	50	575D	10.0	30.0
		144	0.47	13.74	2155	34			
		82	0.27	13.22	208	0			
320342	100597	110	0.21	13.83	2563	49	1100D	10.0	30.0
		169	1.11	13.33	1529	35			
		147	2.67	13.07	139	0			
320353	101149	35	0.14	14.01	1961	51	530D	10.0	30.0
		61	0.72	14.26	943	36			
		192	8.03	9.08	85	0			
320359	100641	94	0.39	14.22	2494	49	675D	7.0	30.0
		122	0.28	13.74	1673	34			
		104	1.29	14.04	190	0			
320020	100055	95	0.12	14.13	3801	50	550D	10.0	30.0
		145	0.58	14.22	2510	36			
		160	1.81	12.90	122	0			

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CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320119	100214	64	0.11	13.99	3026	50	600D	8.0	30.0
		116	0.20	14.70	2202	35			
		109	0.89	13.93	156	0			
320235	100425	69	0.14	14.02	2920	49	675D	10.0	32.0
		120	0.74	13.64	1798	34			
		105	2.16	10.49	143	0			
320327	100686	67	0.10	13.20	3164	49	625D	10.0	29.0
		92	0.10	13.58	2883	35			
		86	0.08	13.25	125	0			
320335	100619	91	0.10	13.83	3782	50	650D	10.0	30.0
		113	0.10	14.01	2839	35			
		81	0.11	14.34	179	0			
320343	100689	98	0.35	14.72	3116	49	600D	9.0	29.0
		134	0.67	14.74	1825	35			
		119	1.32	13.85	124	0			
320364	100629	69	0.09	13.64	3703	49	650D	10.0	30.0
		97	0.11	14.35	2935	35			
		61	0.12	13.81	155	0			
320061	100127	139	0.12	13.78	3143	48	575D	10.0	30.0
		190	0.13	13.64	2552	34			
		126	0.65	14.09	196	0			
320163	100431	67	0.14	13.64	2373	50	675D	10.0	30.0
		136	0.12	14.12	2538	35			
		144	2.19	13.72	177	0			
320352	100625	77	0.14	13.77	2267	48	700D	10.0	30.0
		93	0.13	13.78	1418	35			
		132	1.17	13.57	197	0			
320433	101096	213	4.25	11.81	568	48	625N	1.0	30.0
		266	6.23	10.46	127	34			
		1292	3.25	10.86	75	0			
320038	100171	24	0.17	14.04	1358	49	575D	8.0	30.0
		36	0.45	13.76	630	33			
		81	1.42	13.57	137	0			
320051	100385	122	1.40	13.78	2257	50	610D	8.0	30.0
		140	1.29	13.86	1559	34			
		141	1.92	13.26	146	0			
320155	100302	23	0.10	13.96	1341	49	550D	8.0	30.0
		33	0.31	14.43	735	34			
		49	0.16	13.93	164	0			

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CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320365	100638	95	0.32	14.11	3822	49	700D	8.0	30.0
		128	0.77	14.05	2207	35			
		52	0.15	13.82	178	0			
320098	100248	92	0.16	14.18	3123	48	635D	6.0	29.5
		131	0.19	14.28	2009	34			
		113	1.27	13.65	153	0			
320171	100342	81	0.17	14.68	3223	50	650D	6.0	29.0
		136	1.13	14.37	1509	35			
		225	9.36	9.17	97	0			
320178	100366	53	0.11	13.28	2543	50	620D	4.0	28.0
		68	0.10	13.30	1384	35			
		171	3.71	12.12	110	0			
320280	100472	70	0.17	14.33	2926	50	600D	6.0	30.0
		118	0.46	14.43	1651	36			
		177	5.95	10.94	125	0			
320415	100889	26	0.13	13.97	1461	49	575D	5.0	30.0
		41	0.22	14.46	972	35			
		287	8.09	9.80	87	0			
320164	100367	34	0.11	13.43	2270	46	620D	6.0	27.0
		88	0.59	14.18	1531	31			
		122	3.26	12.42	184	0			
320259	100424	65	0.25	13.65	2660	49	625D	5.0	32.0
		181	1.78	13.66	1297	35			
		232	7.48	10.10	106	0			
320380	100709	75	0.33	13.85	3035	43	650D	6.0	27.5
		176	2.10	13.42	1304	30			
		221	6.37	10.82	124	0			
320403	100828	62	0.34	13.65	2775	45	575D	6.0	29.5
		93	0.52	14.06	1452	31			
		119	2.15	13.34	175	0			
320457	101462	36	0.13	13.29	2330	49	625D	6.0	31.0
		103	0.58	13.98	1845	34			
		161	4.99	11.70	131	0			
320458	101442	27	0.12	13.41	2220	49	625D	5.0	31.0
		95	0.68	14.35	1418	33			
		117	3.41	12.72	118	0			
320486	101837	42	0.11	13.74	2568	49	650D	4.0	30.0
		79	0.32	14.23	1265	33			
		101	2.19	12.99	120	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320492	102947	46	0.17	13.95	2857	49	600D	6.0	30.0
		76	0.23	14.48	1825	33			
		114	1.60	13.47	143	0			
320022	100058	149	0.14	13.83	4260	48	515D	8.0	27.5
		220	0.44	14.14	2595	33			
		277	5.15	11.18	117	0			
320103	100504	81	0.13	13.59	4191	50	625D	6.0	29.5
		110	0.18	14.34	1961	35			
		158	2.06	12.97	123	0			
320234	100441	119	0.18	14.07	4075	49	725D	6.0	30.5
		158	0.54	14.35	1836	35			
		143	1.96	13.19	186	0			
320264	100492	127	0.27	14.28	4134	49	650D	6.0	30.0
		162	0.41	14.48	2388	34			
		194	3.09	12.55	137	0			
320314	100550	91	0.13	13.86	3986	49	650D	8.0	30.0
		96	0.14	14.04	1643	35			
		118	1.19	13.78	197	0			
320320	100576	103	0.13	13.10	4236	50	600D	6.0	30.0
		139	0.13	14.00	3284	35			
		296	6.50	10.30	116	0			
320331	100601	117	0.12	13.95	4192	49	650D	6.0	29.5
		140	0.13	14.29	2588	34			
		155	2.61	12.98	140	0			
320332	101362	87	0.12	13.88	4262	48	650D	6.0	30.5
		124	0.15	14.40	3439	35			
		154	1.98	13.29	154	0			
320360	100867	133	0.29	14.40	3242	49	650D	14.0	27.0
		186	0.58	14.40	2316	35			
		239	3.42	12.33	167	0			
320366	100706	115	0.13	13.22	4271	49	675D	6.0	30.0
		133	0.13	13.63	2633	34			
		112	0.44	13.69	208	0			
320083	100215	97	0.13	14.02	3609	50	600D	7.0	30.0
		162	1.35	13.94	1670	35			
		165	4.67	11.63	125	0			
320128	100299	99	0.12	14.19	4004	50	675D	7.0	28.0
		139	0.50	14.81	2360	35			
		135	1.93	13.79	230	0			

LOS ANGELES CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
320169	100298	95	0.14	14.48	3317	49	650D	7.5	29.0
		145	1.48	14.18	1330	34			
		185	6.00	11.02	116	0			
320206	100402	104	0.20	13.55	3510	49	600D	7.0	30.0
		139	0.55	14.43	2276	35			
		224	5.04	11.55	115	0			
320266	100724	113	0.34	13.82	3532	47	600D	8.0	29.0
		154	1.09	14.02	1864	35			
		229	6.75	10.05	94	0			
320296	101239	90	0.14	13.86	4027	47	600D	7.0	29.0
		153	0.99	13.62	2095	34			
		134	2.57	11.30	140	0			
320348	100603	105	0.20	13.63	3804	48	530D	5.0	31.0
		154	0.81	14.03	2172	35			
		182	4.62	11.71	133	0			
320408	101071	73	0.09	13.75	4074	49	550D	7.0	28.0
		129	0.46	14.21	2933	35			
		148	3.07	10.92	109	0			
320502	104125	56	0.09	13.83	4192	48	600D	7.5	30.0
		104	0.90	14.12	2257	33			
		180	7.46	10.42	158	0			
320153	100388	94	0.45	12.95	3091	38	875N	0.0	47.0
		106	0.35	12.77	1767	23			
		84	0.85	12.05	232	0			
320217	100612	66	0.13	13.64	2416	37	850D	0.0	40.0
		56	0.09	13.23	859	24			
		76	0.16	9.47	91	0			
320363	101068	124	2.81	11.65	1296	34	725D	0.0	53.0
		48	0.16	11.69	1374	23			
		42	0.42	7.53	108	0			
320007	100032	85	0.23	13.98	3840	37	925D	0.0	05.6
		90	0.08	13.59	2791	23			
		110	2.93	10.80	116	0			
320014	100049	78	0.30	13.66	3012	34	720N	0.0	47.5
		116	0.10	13.26	2104	22			
		72	1.38	12.14	106	0			
320017	100052	117	0.43	13.30	3364	39	750N	0.0	26.0
		140	0.42	13.52	1856	24			
		225	8.52	7.48	97	0			

LOS ANGELES

1970 VEHICLES

KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	IRPM	BT	DWL
320034	100257	192	2.36	13.01	2275	35	900N	0.0	50.0
		159	0.64	13.40	2508	24			
		83	2.66	12.74	123	0			
320033	100198	106	1.00	12.66	2594	36	1000N	0.0	24.0
		146	1.63	12.40	1120	23			
		171	4.74	9.63	99	0			
320045	100147	103	1.50	12.16	3591	46	940N	7.5	48.0
		119	0.30	11.96	3483	24			
		186	5.17	10.09	98	0			
320055	100199	116	1.97	12.36	2265	38	500N	0.0	25.0
		139	0.79	12.93	1548	24			
		85	0.51	14.34	132	0			
320091	100200	135	0.85	13.38	3355	37	1050N	0.0	24.0
		157	0.56	14.39	1459	25			
		120	4.73	10.98	83	0			
320095	100201	120	0.46	13.18	3428	38	1325N	0.0	30.0
		149	0.46	13.08	1592	25			
		161	2.64	13.03	102	0			
320097	100148	71	0.59	13.58	2786	34	740N	-7.5	56.0
		145	0.16	13.64	2637	25			
		103	3.38	10.61	116	0			
320101	100244	170	1.82	13.51	2442	37	1180N	-0.5	51.5
		158	1.50	13.02	1058	25			
		126	5.28	9.65	81	0			
320108	100245	109	1.44	13.79	1644	36	980N	-7.5	59.0
		71	0.14	13.41	1008	25			
		97	4.32	9.94	80	0			
320130	100106	120	1.03	13.71	3427	45	710N	7.0	40.0
		128	0.12	12.75	2894	31			
		119	0.34	13.97	103	0			
320131	100107	133	0.52	13.23	3767	37	950N	0.0	50.0
		201	0.37	13.47	2697	25			
		94	4.03	10.11	102	0			
320132	100108	118	0.53	12.93	3969	38	750N	0.0	50.0
		166	1.18	12.73	1203	25			
		120	3.59	10.59	112	0			
320277	100464	129	1.19	13.71	3602	37	950N	0.0	42.0
		130	0.11	14.14	2610	22			
		218	8.11	9.05	88	0			

LOS ANGELES

1970 VEHICLES

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	KEYMODE TEST DATA IRPM	BT	DWL
320063	100165	164	4.96	11.72	699	35	800N	0.0	50.0
		195	2.75	13.21	482	25			
		167	4.10	12.11	109	0			

TABLE E-4

Detroit

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420425	000524	68	0.08	14.39	3367	47	550D	3.0	32.0
		107	0.09	14.12	2910	34			
		108	1.33	14.20	219	0			
420410	000509	170	0.14	13.83	3552	46	500D	5.0	35.0
		209	0.17	13.54	2380	32			
		317	6.71	10.28	69	0			
420413	000512	112	0.10	13.74	3573	46	600D	6.0	30.0
		135	0.12	13.57	2837	32			
		137	0.48	14.28	218	0			
420460	000608	55	0.12	13.34	2059	51	625D	5.0	30.0
		100	0.27	13.67	1330	35			
		113	0.86	13.47	155	0			
420462	000610	80	0.14	13.68	3233	50	625D	5.0	27.0
		118	0.33	13.97	2396	36			
		128	1.58	13.64	145	0			
420248	000248	172	0.30	14.07	3673	51	600D	5.0	34.0
		204	0.28	14.01	3195	35			
		113	0.35	14.36	250	0			
420394	000493	187	0.22	13.64	3491	46	525D	5.0	33.0
		228	0.24	14.09	2337	32			
		164	3.85	12.08	81	0			
420021	000029	100	0.85	14.05	3362	44	450D	-2.0	33.0
		123	0.49	13.83	3686	31			
		160	3.07	11.44	155	0			
420498	000656	105	1.45	13.42	2406	46	610D	2.0	39.0
		129	0.22	14.20	3447	31			
		143	1.77	12.80	224	0			
420506	000664	118	2.08	13.13	2501	46	575D	6.0	46.0
		178	0.26	14.23	3913	32			
		300	7.56	9.03	66	0			
420550	000756	85	0.25	13.19	3952	45	800N	2.5	52.0
		142	0.53	13.92	3591	32			
		131	0.12	13.03	126	0			
420123	000124	99	0.93	13.94	3293	44	650D	6.0	43.0
		123	0.39	14.35	3638	32			
		117	0.54	13.80	327	0			
420185	000185	105	1.52	13.71	3086	45	600D	6.0	39.0
		155	0.47	14.35	3556	32			
		311	7.90	8.91	71	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420059	000061	106	0.09	14.27	3541	45	725N	-2.0	37.0
		161	0.64	14.54	1990	32			
		119	3.51	12.46	104	0			
420091	000098	96	0.65	13.93	2961	44	550D	6.0	32.0
		125	0.05	13.50	3995	31			
		165	1.14	13.56	333	0			
420359	000424	52	0.10	13.65	2461	46	550D	3.0	34.0
		108	0.07	13.44	2902	32			
		128	1.60	13.49	263	0			
420428	000527	101	0.46	14.55	3424	44	600D	3.0	31.0
		140	0.56	14.69	3283	33			
		196	2.56	13.23	195	0			
420463	000611	51	0.09	13.53	2889	46	575D	3.0	36.0
		138	0.08	14.10	3750	33			
		202	5.04	11.16	88	0			
420478	000639	80	0.07	13.63	4129	45	575N	3.0	33.0
		140	0.21	14.45	3434	33			
		281	8.44	9.13	53	0			
420487	000635	64	0.08	13.27	3172	45	600N	7.0	35.0
		139	0.17	14.55	2874	32			
		171	6.40	10.18	64	0			
420521	000694	59	0.09	12.84	2230	44	450D	4.0	36.0
		162	0.07	12.91	3043	31			
		242	3.71	11.93	211	1			
420522	000695	80	1.12	14.33	1660	45	550D	10.0	34.0
		133	0.12	14.33	2758	32			
		119	0.27	14.58	275	0			
420173	000173	211	3.90	12.02	785	45	600N	-2.0	50.0
		233	0.32	14.24	2162	32			
		150	2.46	12.83	86	0			
420510	000668	79	1.12	13.77	1624	46	550D	11.0	34.0
		151	0.10	13.19	2103	31			
		134	0.79	14.08	225	0			
420264	000264	102	0.16	14.59	2804	50	1000D	4.0	35.0
		327	6.26	10.43	385	35			
		287	5.66	10.67	111	0			
420386	000483	113	0.53	14.65	2625	46	550D	6.0	39.0
		188	0.88	14.33	2078	31			
		159	3.44	12.64	115	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420207	000207	139	2.00	13.51	1982	45	625N	0.0	48.0
		213	3.00	12.55	1155	31			
		197	6.89	9.38	81	0			
420325	000349	74	0.84	13.92	4146	51	634D	15.0	40.0
		139	1.87	13.50	2870	35			
		413	7.44	9.62	132	0			
420383	000479	82	0.39	13.87	3857	45	525D	0.0	34.0
		149	0.48	14.31	3656	35			
		181	3.23	11.78	102	0			
420388	000487	86	0.25	13.35	3082	47	550D	6.0	47.0
		161	0.31	14.22	3344	32			
		309	9.69	8.30	62	0			
420391	000490	97	0.34	13.40	3670	46	525D	0.0	50.0
		138	0.32	12.87	2425	32			
		241	6.58	9.53	83	0			
420403	000502	95	0.56	13.78	3107	46	625D	0.0	48.0
		134	0.31	14.06	3469	32			
		165	3.79	11.95	126	0			
420420	000519	103	1.27	13.80	3260	46	525D	3.0	37.0
		159	1.94	13.22	2531	32			
		331	10.47	7.49	39	0			
420430	000529	99	0.36	13.80	4169	43	500D	0.0	34.0
		142	0.27	13.68	4114	32			
		473	11.57	6.92	56	0			
420443	000564	99	1.06	13.91	3308	46	550D	2.0	41.0
		162	1.42	13.36	2456	33			
		264	6.57	9.82	79	0			
420456	000604	109	0.33	13.61	3864	46	500D	0.0	50.0
		167	0.52	13.58	2784	34			
		422	11.54	6.05	31	0			
420470	000619	73	0.16	13.65	3807	44	475D	0.0	43.0
		139	0.37	13.74	3411	32			
		242	8.69	10.07	105	0			
420481	000629	71	0.24	13.58	4004	46	700N	0.0	34.0
		123	0.23	13.65	3443	32			
		180	5.80	10.26	83	0			
420018	000028	91	0.24	14.00	2061	50	600D	4.0	40.0
		171	0.13	13.26	2479	35			
		94	0.33	13.77	158	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420019	000023	111	0.53	14.44	2216	50	600D	-4.0	30.0
		146	0.11	13.33	2627	34			
		86	0.07	13.07	109	0			
420022	000020	99	0.66	14.46	2423	50	725D	-2.0	30.0
		131	0.25	14.18	2835	35			
		175	5.43	10.34	79	0			
420025	000035	104	0.23	14.38	2162	50	525D	-3.0	32.0
		192	0.09	13.89	2841	34			
		163	1.59	12.19	102	0			
420053	000054	102	0.38	14.39	2161	50	500D	0.0	36.0
		212	0.32	13.91	2633	35			
		235	6.44	9.20	58	0			
420105	000106	110	0.18	13.90	2913	44	600D	0.0	36.0
		157	0.16	14.08	2649	32			
		141	1.50	13.40	111	0			
420119	000120	97	0.63	14.22	1617	45	625D	-5.0	36.0
		148	0.19	14.37	2028	32			
		128	2.76	12.76	92	0			
420126	000126	120	0.68	14.08	2121	50	535D	4.0	32.0
		186	0.19	13.67	2809	32			
		146	1.17	13.12	133	0			
420158	000158	90	0.23	14.19	2274	51	550D	5.0	36.0
		169	0.11	13.44	2961	35			
		115	0.71	13.28	151	0			
420259	000259	85	0.69	14.16	1614	50	600D	0.0	31.0
		131	0.10	13.80	2131	35			
		128	2.80	11.83	87	0			
420385	000482	139	0.51	13.96	2901	47	700N	0.0	34.0
		166	0.17	14.02	2640	35			
		237	6.74	10.09	68	0			
420409	000508	58	0.13	13.81	1932	51	475D	0.0	26.0
		189	0.16	13.74	3131	35			
		191	6.59	9.86	65	0			
420424	000523	97	0.32	14.54	2776	51	525D	0.0	34.0
		142	0.12	13.90	3441	35			
		151	1.85	13.05	76	0			
420429	000528	156	0.31	13.87	3040	50	625D	4.0	34.0
		237	0.16	13.35	3716	35			
		337	0.92	13.85	181	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	RT	DWL
420439	000560	75	0.32	14.43	2449	50	675D	0.0	36.0
		123	0.11	13.96	3469	34			
		125	1.65	13.67	128	0			
420441	000562	59	0.17	13.93	2705	50	600D	8.0	31.0
		135	0.18	13.94	2874	35			
		285	7.70	9.51	69	0			
420471	000620	95	0.15	13.81	3019	46	450D	0.0	34.0
		164	0.26	13.38	2753	32			
		375	8.80	8.57	61	0			
420477	000625	110	0.31	14.00	2871	46	525D	-2.0	34.0
		176	0.23	14.35	2713	32			
		212	4.19	11.94	86	0			
420479	000627	95	0.18	14.33	2736	46	625D	0.0	27.0
		151	0.09	13.56	3208	32			
		189	3.73	12.44	81	0			
420484	000632	58	0.19	13.84	1832	46	700D	0.0	32.0
		94	0.11	12.19	1511	32			
		77	0.26	14.32	176	0			
420485	000633	88	0.48	14.26	1846	46	660N	0.0	31.0
		154	0.13	13.62	2606	33			
		133	1.52	13.90	96	0			
420507	000665	101	0.72	14.37	1639	50	525D	0.0	32.0
		163	0.26	13.89	2140	35			
		165	3.55	11.46	54	0			
420069	000069	89	0.15	14.13	3149	50	600D	-4.0	39.0
		154	0.64	14.41	2158	35			
		242	7.83	9.25	60	0			
420165	000165	121	0.85	13.67	3004	49	550D	2.5	30.0
		113	0.08	13.40	2719	36			
		149	3.29	12.02	52	0			
420230	000230	132	0.90	13.72	2624	49	575D	0.0	49.0
		152	0.17	13.71	2611	34			
		152	5.70	10.67	97	0			
420278	000283	94	0.14	13.57	3967	50	620D	4.0	32.0
		107	0.07	12.31	2257	34			
		143	3.11	12.90	120	0			
420280	000287	96	0.29	13.67	3616	51	575D	0.0	36.0
		97	0.13	12.75	2714	35			
		163	4.11	11.42	93	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420306	000325	125	0.49	13.81	3470	51	600D	6.0	35.0
		107	0.10	12.74	2573	35			
		174	3.39	12.35	113	0			
420339	000385	208	2.57	12.98	1988	51	600D	8.0	34.0
		263	1.81	13.18	2154	36			
		242	4.75	10.40	122	0			
420395	000494	92	0.20	13.61	3760	51	550D	3.0	32.0
		139	0.12	13.74	2613	34			
		197	6.89	9.73	67	0			
420399	000498	83	0.21	14.13	3192	52	450D	0.0	40.0
		127	0.17	14.08	2345	36			
		170	3.09	12.04	69	0			
420404	000503	106	0.33	13.95	3658	51	425D	0.0	31.0
		181	0.11	13.82	3432	35			
		575	11.00	7.18	47	0			
420433	000532	96	0.39	13.61	2985	47	750D	2.5	32.0
		88	0.13	12.90	1830	35			
		127	0.26	13.57	248	0			
420451	000574	58	0.22	12.81	3463	50	575D	3.0	32.0
		173	0.45	13.42	2277	34			
		237	8.62	8.74	52	0			
420452	000575	132	0.88	13.95	3389	51	575D	4.0	31.0
		181	0.61	13.95	3241	35			
		366	6.30	10.28	85	0			
420500	000658	114	1.49	13.39	2648	52	600D	5.0	35.0
		138	1.14	13.56	1998	36			
		177	4.26	11.88	85	0			
420155	000155	192	1.03	13.55	3588	49	950N	10.0	33.0
		207	0.97	12.91	2067	35			
		134	3.26	11.42	93	0			
420480	000628	171	1.19	13.67	3282	46	750D	5.0	34.0
		207	1.37	13.53	2347	32			
		251	7.63	9.19	50	0			
420427	000526	153	1.08	13.96	3183	48	525D	0.0	34.0
		168	0.62	13.80	3460	32			
		215	5.22	11.05	74	0			
420578	000837	88	0.38	13.35	3597	50	650D	4.0	32.0
		85	0.07	12.45	2480	36			
		175	6.45	10.19	101	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420431	000530	126	1.87	13.43	2683	52	750D	3.0	32.0
		191	3.07	12.54	1282	35			
		401	7.38	8.90	62	0			
420488	000587	185	4.82	11.00	987	49	575D	3.0	31.0
		218	3.40	11.88	734	34			
		428	7.62	7.80	40	0			
420051	000050	305	4.44	11.77	812	44	650N	-2.0	36.0
		246	0.47	14.38	2557	34			
		181	2.04	13.22	91	0			
420084	000089	177	0.26	14.31	3181	44	600D	-6.0	42.0
		283	0.38	14.17	3022	31			
		286	6.43	10.42	105	0			
420145	000145	247	0.36	14.01	4057	44	500N	4.0	35.0
		246	0.05	13.32	3875	31			
		544	9.59	8.37	99	0			
420412	000511	152	0.07	12.85	4003	38	500D	0.0	45.0
		194	0.10	13.47	2682	25			
		224	3.26	12.47	112	0			
420503	000661	275	4.19	11.55	1395	45	700N	3.0	38.0
		255	0.39	14.02	2322	30			
		220	5.44	10.69	77	0			
420003	000003	146	0.02	13.39	3765	38	625D	-4.0	39.0
		208	0.13	14.29	2097	24			
		181	2.30	13.00	161	0			
420048	000051	159	0.08	13.51	3750	44	850D	-4.0	40.0
		223	0.08	13.24	4173	34			
		219	5.14	11.26	115	0			
420095	000092	135	0.19	14.48	3108	44	450D	-4.0	41.0
		187	0.09	14.04	3408	32			
		213	6.44	9.70	84	0			
420101	000102	162	0.06	13.59	3873	38	725D	-3.0	38.0
		191	0.08	13.66	2550	26			
		140	2.52	11.07	154	0			
420182	000182	220	0.10	14.13	3909	37	800N	-3.0	38.0
		217	0.16	14.13	1772	25			
		105	2.92	12.97	86	0			
420340	000387	176	0.08	12.75	3396	39	600D	6.0	36.0
		264	0.09	13.60	2366	24			
		189	4.29	11.38	139	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420341	000388	184	0.07	13.04	3575	39	4200	6.0	34.0
		205	0.07	12.61	1551	25			
		285	7.19	9.65	74	0			
420440	000561	166	0.10	14.03	4179	39	600N	6.0	38.0
		219	0.54	14.42	1583	25			
		86	0.76	14.40	109	0			
420037	000031	230	0.0	13.64	3366	44	5500	15.0	34.0
		189	0.02	13.86	1272	31			
		166	0.73	14.29	150	0			
[illegible]3040	000036	144	0.45	13.61	2262	49	4250	-10.0	34.0
		160	0.49	14.23	1514	35			
		276	8.29	9.43	61	0			
420041	000039	154	0.10	13.69	3615	46	4500	0.0	33.0
		154	0.21	13.81	1685	31			
		136	1.22	14.15	174	0			
420079	000079	176	0.10	13.55	3523	49	4750	-10.0	36.0
		200	0.22	14.00	2047	35			
		225	4.41	11.99	93	0			
420080	000080	258	0.13	13.32	3820	44	5250	-6.0	33.0
		222	0.13	13.60	1943	31			
		162	0.60	14.49	220	0			
420092	000097	119	0.44	14.07	1495	44	6000	6.0	34.0
		81	0.35	14.57	691	32			
		156	1.28	14.30	136	0			
420111	000112	213	0.27	13.62	3255	44	5000	4.0	32.0
		183	0.28	14.08	1309	31			
		156	0.73	14.44	147	0			
420124	000125	212	0.17	13.91	3541	45	7000	6.0	30.0
		208	0.14	13.97	2071	31			
		145	0.98	14.12	215	0			
420137	000136	192	0.10	13.66	4178	49	4500	6.0	30.0
		241	0.25	13.99	3379	35			
		442	8.73	9.26	68	0			
420139	000139	246	0.17	13.85	3394	45	5750	6.0	32.0
		196	0.33	14.04	1216	31			
		168	1.40	13.81	161	0			
420140	000140	239	0.20	14.16	3315	44	5500	6.0	36.0
		177	0.20	14.18	1336	31			
		206	4.24	12.19	92	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420192	000192	167	0.13	13.89	3534	50	D	.	.
		124	0.28	14.14	1357	35			
		246	5.08	11.48	119	0			
420206	000206	127	0.10	13.17	2146	50	575D	-7.0	35.0
		152	0.10	13.54	1580	36			
		272	8.21	9.52	78	0			
420324	000348	197	0.37	14.04	4064	46	545D	6.0	37.0
		217	0.18	13.99	3311	33			
		196	0.39	14.02	262	0			
420486	000634	172	0.12	13.98	3303	46	550N	12.0	34.0
		156	0.11	13.69	1163	32			
		106	0.85	14.54	74	0			
420014	000018	77	0.29	13.64	1965	50	400D	-4.0	43.6
		164	0.27	13.56	2512	35			
		75	0.39	14.08	212	0			
420016	000015	104	0.28	14.07	2616	50	600D	-4.0	32.0
		210	0.65	14.02	2762	35			
		97	0.57	14.50	273	0			
420017	000016	70	0.25	13.91	2083	50	450D	-8.0	35.0
		182	0.23	14.15	2810	35			
		65	0.10	13.67	176	0			
420030	000032	116	0.16	13.82	2382	50	475D	2.0	35.0
		221	0.04	14.17	2771	34			
		277	3.37	12.55	89	0			
420031	000024	105	0.56	13.60	1881	49	400D	-4.0	35.0
		227	0.48	14.15	2546	35			
		124	1.06	14.06	188	0			
420032	000010	125	0.08	13.92	3131	50	400D	-4.0	32.0
		200	0.30	13.86	2921	35			
		112	0.51	14.57	208	0			
420044	000038	130	0.44	13.55	3055	50	525D	-15.0	34.0
		209	0.59	13.85	3027	34			
		188	1.81	13.69	158	0			
420045	000041	165	1.10	13.59	2959	45	475D	-2.0	33.0
		236	0.83	14.38	2317	31			
		707	11.12	7.79	59	0			
420054	000057	132	0.21	13.68	2630	50	580D	-5.0	34.0
		276	0.59	13.76	2812	35			
		179	2.75	13.19	188	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420061	000063	177	0.54	14.19	3242	50	575D	0.0	32.0
		234	0.38	14.02	3007	34			
		185	0.58	14.36	308	0			
420072	000071	143	0.55	13.26	2078	50	475D	-8.0	32.0
		265	0.57	13.67	2631	35			
		389	8.43	9.36	71	0			
420074	000074	104	0.11	14.01	2950	49	500D	-6.0	36.0
		195	0.29	13.78	2931	35			
		229	4.55	11.87	103	0			
420076	000078	139	0.30	14.23	3037	49	475D	-4.0	31.0
		194	0.14	13.97	2600	34			
		294	4.21	12.31	115	0			
420083	000085	134	0.43	14.33	3063	50	500D	6.0	31.0
		189	0.37	14.19	3219	35			
		100	0.20	14.43	354	0			
420085	000090	196	0.46	13.90	3079	44	525D	4.0	31.0
		221	0.26	14.06	2255	32			
		434	8.55	9.35	79	0			
420110	000111	150	0.86	14.18	3316	49	675D	-10.0	34.0
		202	1.52	13.68	2619	35			
		175	0.45	14.62	419	0			
420113	000114	143	0.41	14.06	3027	50	500D	4.0	34.0
		232	1.01	13.79	2565	34			
		172	2.98	13.11	137	0			
420114	000115	103	0.19	14.21	2249	49	400D	4.0	29.0
		195	0.25	13.83	2220	34			
		208	3.71	11.64	82	0			
420132	000131	670	0.29	13.13	2189	50	525D	6.0	35.0
		901	0.80	13.17	2268	35			
		1782	9.12	7.68	67	0			
420143	000143	106	0.26	13.78	2157	49	500D	4.0	34.0
		198	0.58	13.97	2160	34			
		155	1.53	13.94	169	0			
420151	000151	154	0.64	13.49	2576	45	625N	4.0	34.0
		206	0.12	13.81	2289	31			
		163	4.85	11.71	81	0			
420093	000099	151	0.10	13.18	3837	49	475D	0.0	27.0
		242	0.14	14.08	3828	34			
		475	10.76	8.06	59	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420116	000116	122	0.22	13.55	2613	50	450D	4.0	34.0
		226	0.30	14.26	2417	34			
		530	6.85	9.76	70	0			
420130	000129	178	0.96	13.19	2928	49	575D	30.0	39.0
		245	0.51	14.11	2869	34			
		544	10.10	8.17	60	0			
420146	000146	142	0.28	14.39	2093	49	600D	16.0	32.0
		215	1.52	13.73	897	34			
		319	8.16	9.52	73	0			
420148	000148	75	0.12	13.36	2111	50	475D	4.0	26.0
		207	0.27	13.79	2752	35			
		261	3.53	12.65	110	0			
420194	000194	114	0.21	13.36	2511	50	500D	4.0	33.0
		206	0.57	13.63	2186	34			
		246	6.34	10.60	99	0			
420195	000195	41	0.10	12.92	1177	51	375D	- 6.0	31.0
		141	0.08	13.82	2818	35			
		107	0.15	14.85	216	0			
420198	000198	109	0.09	13.61	3197	50	625D	10.0	32.0
		185	0.33	14.22	2808	35			
		237	6.35	10.68	95	0			
420201	000201	123	0.11	13.57	3341	50	525D	7.0	29.0
		179	0.13	13.82	3161	35			
		183	1.85	13.74	204	0			
420642	000979	83	0.18	13.32	2070	50	550D	6.0	29.0
		111	0.14	13.26	1301	36			
		148	0.80	13.77	127	0			
420104	000105	171	0.93	14.04	2394	49	525D	6.0	35.0
		137	0.47	13.87	1395	35			
		137	4.34	12.18	111	0			
420246	000246	139	0.26	13.97	2700	50	450D	4.0	32.0
		173	0.21	13.68	1925	34			
		618	9.07	8.34	108	0			
420314	000335	174	0.70	13.90	2615	49	525D	0.0	32.0
		145	0.18	13.67	1684	34			
		112	2.39	13.44	156	0			
420338	000384	221	0.58	13.72	2225	46	550D	6.0	32.0
		153	0.17	13.70	826	31			
		295	2.92	12.69	123	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420406	000505	37	0.17	12.33	1854	50	600N	0.0	39.0
		74	0.17	12.32	1129	36			
		138	6.48	10.22	77	0			
420587	000848	135	0.08	12.82	3056	48	500N	4.0	39.0
		192	0.08	12.66	2041	37			
		516	3.38	12.18	91	0			
420593	000854	102	0.11	13.73	3735	50	600D	6.0	39.0
		119	0.11	12.67	2567	36			
		109	0.10	14.36	296	0			
420047	000049	97	0.13	13.69	3217	44	550D	-4.0	37.0
		174	0.17	13.74	3866	32			
		175	3.41	12.70	129	0			
420075	000081	97	0.15	13.93	4155	44	600D	-12.0	36.0
		146	0.28	14.26	4037	31			
		263	7.21	9.81	112	0			
420196	000196	99	0.13	13.85	2855	46	700D	-4.0	43.0
		159	0.10	14.04	3630	32			
		108	1.42	14.24	185	0			
420380	000480	113	0.49	13.89	2973	46	600N	6.0	36.0
		89	0.14	13.89	1669	36			
		286	6.79	10.29	62	0			
420273	000277	101	0.63	13.41	1798	50	500D	6.0	32.0
		136	0.22	13.79	1576	34			
		424	8.87	8.93	77	0			
420298	000317	168	0.23	13.12	2419	50	600D	6.0	40.0
		258	0.27	13.39	2318	34			
		334	5.39	11.08	202	0			
420594	000855	94	0.42	13.86	3422	51	550D	6.0	32.0
		107	0.40	13.81	2048	36			
		113	1.29	14.06	174	2			
420607	000869	172	1.87	13.74	82	0	370N	4.0	.
		156	0.57	14.32	1202	36			
		125	0.56	14.14	2355	51			
420605	000867	258	0.30	12.44	64	0	740N	8.0	.
		104	0.82	12.33	749	32			
		105	0.95	12.14	1582	47			
420169	000169	110	0.09	13.36	3103	51	750D	0.0	30.0
		164	0.38	14.07	2101	35			
		125	0.59	14.53	338	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420598	000859	129	1.88	13.22	1575	46	500D	4.0	39.0
		43	0.11	12.76	929	33			
		200	2.91	12.60	236	0			
420600	000861	185	0.21	14.44	369	0	550D	4.0	38.0
		146	0.10	12.50	1749	33			
		63	0.12	13.20	2029	47			
420603	000865	83	0.14	14.02	3084	46	550D	4.0	38.0
		88	0.07	12.78	1885	33			
		263	6.75	10.55	110	0			
420637	000971	41	0.11	12.80	1115	46	600D	4.0	37.0
		118	0.11	12.22	973	33			
		244	3.62	11.90	172	0			
420129	000128	91	0.07	13.95	2718	44	475N	0.0	35.0
		153	0.08	14.18	2145	32			
		120	3.91	12.33	92	0			
420468	000616	91	1.65	13.50	2119	50	600D	6.0	34.0
		68	0.13	12.99	2331	35			
		222	6.29	10.28	66	0			
420531	000704	13	0.05	12.33	677	44	600D	5.0	38.0
		26	0.06	12.94	457	31			
		156	3.07	12.88	119	0			
420583	000842	83	0.09	13.15	3507	45	700N	3.0	39.0
		165	0.15	14.04	1990	32			
		247	7.95	9.33	75	0			
420584	000843	150	3.34	12.45	1534	47	625D	8.0	41.0
		138	0.13	14.09	3801	33			
		310	8.05	9.19	85	0			
420599	000860	42	0.12	13.79	1736	47	550N	3.0	38.0
		202	0.52	14.20	2035	33			
		141	6.18	10.81	103	0			
420601	000862	205	3.93	11.84	104	0	450D	4.0	39.0
		52	0.11	12.61	799	33			
		27	0.10	13.07	1436	47			
420614	000890	135	0.22	14.28	384	0	825D	4.0	38.0
		104	0.07	13.41	3219	36			
		74	0.07	13.07	4084	46			
420633	000920	81	0.09	13.27	3683	50	550N	0.0	29.0
		172	0.11	13.84	3044	35			
		113	1.10	13.80	106	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420247	000247	114	0.17	13.14	2330	51	500D	4.0	34.0
		142	0.10	13.76	1912	34			
		80	0.39	14.36	244	0			
420289	000303	199	1.03	13.53	2430	50	500D	-10.0	36.0
		255	0.97	13.71	1748	35			
		230	7.80	9.55	91	0			
420208	000208	168	1.32	14.06	2632	49	520N	-3.0	32.0
		202	0.62	14.34	2154	35			
		308	7.66	10.12	86	0			
420322	000346	132	0.55	12.74	2520	50	550D	0.0	30.0
		117	0.48	11.45	1327	35			
		117	3.43	11.17	81	0			
420384	000481	132	0.77	12.44	2675	51	550D	6.0	30.0
		112	0.69	11.54	1635	35			
		132	1.43	10.92	160	0			
420250	000250	59	0.28	14.13	1830	45	575D	4.0	37.0
		22	0.08	12.86	720	32			
		242	5.89	10.64	108	0			
420416	000515	39	0.14	13.42	2307	46	600D	4.0	34.0
		97	0.13	13.22	2298	31			
		224	3.82	12.42	112	0			
420418	000517	82	0.35	14.48	2254	45	625D	4.0	34.0
		38	0.13	13.10	826	32			
		227	5.45	11.28	89	0			
420446	000567	81	0.19	14.51	2941	46	550D	0.0	29.0
		97	0.14	12.99	2312	33			
		336	9.77	8.45	63	0			
420454	000599	143	1.32	13.89	1956	48	675N	4.0	35.0
		165	0.15	14.18	1855	33			
		140	5.07	11.39	72	0			
420585	000844	50	0.14	13.71	2138	47	400D	3.0	39.0
		33	0.11	13.07	839	33			
		372	6.83	10.31	102	0			
420595	000856	57	0.11	12.03	915	46	500D	4.0	38.0
		105	0.09	11.66	543	33			
		202	1.70	12.93	184	0			
420597	000858	120	0.18	13.94	3309	46	450N	4.0	39.0
		245	0.21	14.08	2499	33			
		301	6.43	10.45	104	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420008	000045	116	0.11	13.55	3375	44	625D	10.0	27.0
		171	0.21	13.55	2994	31			
		207	1.04	13.97	184	0			
420010	000467	206	0.34	13.77	3310	45	725N	3.0	32.0
		269	0.24	13.69	2256	31			
		357	3.68	11.96	81	0			
420042	000037	101	0.07	13.14	3072	45	525D	9.0	29.0
		170	0.12	13.78	2933	31			
		183	0.88	14.23	211	0			
420046	000043	158	0.30	13.99	4074	44	450D	-12.0	16.0
		238	0.71	13.69	3152	31			
		348	4.49	11.50	163	0			
420150	000150	118	0.20	13.53	2321	45	450D	8.0	31.0
		207	0.17	13.59	2263	32			
		546	10.45	7.97	56	0			
420181	000181	104	1.60	13.04	1201	46	560D	2.0	27.0
		164	0.75	13.63	1535	32			
		249	4.57	11.63	73	0			
420263	000263	103	0.35	14.10	3188	49	775D	4.0	34.0
		143	0.28	14.06	2925	35			
		155	0.40	14.48	197	0			
420307	000326	115	0.24	13.28	3167	46	675D	6.0	32.0
		157	0.12	13.93	3246	33			
		159	0.45	14.20	370	0			
420319	000343	75	0.68	13.80	1824	51	600D	4.0	30.0
		145	0.41	13.38	1007	36			
		716	7.36	9.46	84	0			
420320	000344	118	0.37	14.18	2702	45	600D	0.0	33.0
		169	0.59	13.80	1922	32			
		226	4.00	12.26	120	0			
420365	000431	171	0.25	13.60	3771	46	650D	2.0	30.0
		225	0.14	13.69	3330	32			
		331	3.13	12.70	197	0			
420401	000500	138	2.04	13.33	1256	51	425D	2.0	30.0
		280	2.30	12.94	1054	36			
		422	9.05	8.67	52	0			
420405	000504	176	1.48	13.73	2743	46	600D	8.0	31.0
		235	0.64	14.44	2706	32			
		280	4.67	11.97	105	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420407	000506	140	0.59	13.74	3374	52	550D	6.0	32.0
		209	0.32	13.48	2821	35			
		340	7.15	9.38	84	0			
420417	000516	167	0.43	14.24	3260	46	575N	-2.0	30.0
		236	0.29	14.10	1994	32			
		782	3.34	7.96	54	0			
420512	000670	163	1.11	13.51	2406	44	625N	12.0	28.0
		253	0.43	14.32	2770	32			
		894	10.12	7.62	71	0			
420547	000752	156	0.31	13.04	3358	46	730N	8.0	31.0
		230	0.23	13.51	2136	31			
		632	7.66	8.93	81	0			
420561	000778	127	0.29	13.73	3416	44	850N	6.0	32.0
		131	0.15	13.31	2030	31			
		159	5.70	10.57	92	0			
420647	201010	153	0.39	14.05	2387	47	700D	-10.0	25.0
		250	0.34	13.42	2182	32			
		461	7.70	9.82	91	0			
420648	001011	158	1.28	14.05	1135	49	550D	-1.0	29.0
		168	1.70	13.69	469	34			
		402	8.09	10.14	65	0			
420649	001013	291	2.29	13.60	1574	51	1300N	4.0	29.0
		239	0.46	13.73	951	35			
		401	0.18	9.12	84	0			
420650	001015	300	3.54	12.84	1930	46	575D	2.0	28.0
		337	1.31	14.05	1992	31			
		612	7.42	10.31	112	0			
420057	000058	165	0.10	14.19	4060	50	525D	-2.0	32.0
		251	0.69	14.29	3021	35			
		622	10.86	7.74	56	0			
420337	000381	145	0.07	13.89	3529	45	900N	4.0	34.0
		168	0.07	13.40	2226	32			
		96	0.99	10.09	150	0			
420472	000621	203	0.96	13.81	2920	46	550D	4.0	34.0
		239	0.78	13.97	2535	31			
		202	4.04	11.91	76	0			
420473	000622	152	0.15	13.86	3734	50	475D	8.0	28.0
		210	0.09	14.12	3036	35			
		323	5.98	10.55	67	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	CWL
420475	000624	99	0.07	13.77	4107	50	500D	8.0	30.0
		182	0.08	14.07	3980	35			
		298	6.54	10.44	72	0			
420491	000638	173	0.33	14.25	3746	49	525D	5.0	31.0
		238	0.58	14.20	2771	34			
		262	7.04	7.24	45	0			
420557	000763	167	0.19	14.51	3339	45	750N	8.0	32.0
		257	2.64	12.97	473	30			
		616	6.87	9.30	54	0			
420586	000847	172	0.55	14.02	3384	49	500D	6.0	30.0
		172	0.49	14.07	3146	38			
		280	7.10	10.14	103	0			
420604	000866	442	6.23	10.29	90	0	410D	-6.0	.
		280	0.47	13.80	2934	36			
		142	0.11	13.58	4146	50			
420606	000868	244	3.27	12.26	114	0	440D	6.0	.
		125	0.10	13.72	1071	36			
		108	0.19	13.34	1847	50			
420608	000870	226	1.61	13.20	142	0	450D	-4.0	.
		121	0.09	11.84	1390	37			
		69	0.11	11.93	1957	51			
420609	000871	749	3.69	11.98	135	0	375D	6.0	.
		244	0.31	14.27	3546	11			
		188	0.52	14.29	3710	25			
420622	000903	184	0.22	13.83	3336	50	625D	4.0	30.0
		230	0.16	13.82	2738	36			
		175	0.92	13.68	152	0			
420638	000972	137	0.06	13.14	4146	50	575D	10.0	26.0
		224	0.38	13.46	2870	35			
		306	4.52	10.89	129	0			
420639	000973	78	0.17	13.96	3549	50	550D	4.0	30.0
		195	0.75	14.11	1746	36			
		277	4.57	11.90	99	0			
420004	000004	119	0.37	14.25	2967	49	630D	-4.0	32.0
		115	0.03	13.27	2117	33			
		270	0.90	14.02	374	0			
420005	000005	1806	0.24	12.06	2349	48	560D	-5.0	29.0
		1787	0.16	12.10	2352	34			
		2485	6.25	8.37	101	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420006	000006	74	0.06	13.58	2661	50	625D	3.0	28.0
		142	0.10	13.89	2673	35			
		123	0.25	14.43	201	0			
420009	000044	59	0.11	13.09	2028	50	625D	4.0	31.0
		168	0.37	14.24	2423	35			
		201	5.77	10.83	98	0			
420013	000021	109	0.22	13.34	2793	49	560D	-4.0	29.0
		201	0.41	14.04	3181	34			
		169	1.30	13.41	171	0			
420020	000011	151	0.66	14.15	3098	50	560D	-4.0	31.0
		184	0.41	14.02	2744	35			
		173	1.04	14.26	267	0			
420024	000008	81	0.06	13.24	2470	50	400D	-4.0	31.0
		183	0.28	13.96	2386	35			
		184	2.63	12.53	128	0			
420026	000025	84	0.13	12.80	2057	50	600D	-2.0	32.0
		197	0.23	13.66	2876	35			
		242	4.09	11.85	91	0			
420028	000017	99	0.11	13.30	3398	50	650D	-4.0	29.0
		136	0.09	13.09	2722	32			
		252	4.71	11.80	122	0			
420029	000019	94	0.13	13.36	2931	51	650D	-4.0	31.0
		205	0.61	14.05	2757	35			
		179	2.05	13.32	172	0			
420063	000062	155	0.77	14.17	2736	50	450D	4.0	30.0
		203	0.28	14.10	2668	35			
		266	4.86	11.72	95	0			
420090	000096	84	0.07	13.20	2069	50	575D	6.0	30.0
		180	0.21	14.41	2517	34			
		263	7.12	10.27	80	0			
420134	000133	161	0.49	14.30	2816	49	575D	0.0	32.0
		238	0.30	13.98	2506	34			
		508	4.99	11.56	120	0			
420174	000174	180	0.18	14.52	3921	50	575D	6.0	27.0
		281	1.42	13.86	2358	35			
		354	3.82	11.81	147	0			
420179	000179	155	0.80	13.64	3088	50	400D	8.0	27.0
		278	2.17	13.08	1879	35			
		449	9.55	8.19	60	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420243	000243	72	0.11	13.09	2158	51	400D	4.0	31.0
		218	0.66	14.10	2424	35			
		279	5.41	11.14	111	0			
420251	000251	140	1.16	13.67	2593	50	575D	6.0	25.0
		231	1.33	13.61	2212	35			
		358	8.49	9.12	69	0			
420257	000257	142	0.16	13.88	3132	43	600D	4.0	30.0
		175	0.08	13.25	2454	31			
		302	5.95	10.68	100	0			
420260	000260	146	0.71	13.93	2858	51	600D	6.0	31.0
		252	2.27	13.21	1693	35			
		264	7.56	9.55	92	0			
420321	000345	115	0.24	13.76	2827	51	550D	6.9	32.0
		182	0.07	13.47	2688	35			
		244	4.91	11.37	133	0			
420496	000654	152	1.28	13.74	2625	50	450N	0.0	32.0
		268	1.29	13.90	2061	36			
		1505	10.60	6.96	84	0			
420641	000978	110	1.11	13.71	1319	51	525D	4.0	29.0
		131	1.18	13.69	816	36			
		312	6.21	10.11	94	0			
420644	000981	117	1.27	13.50	1284	50	600D	4.0	30.0
		146	2.24	12.96	526	36			
		248	4.22	11.78	106	0			
420387	000484	176	1.92	13.15	2490	51	600D	4.0	31.0
		165	0.21	13.66	2947	35			
		154	0.15	13.64	201	0			
420400	000499	96	0.53	13.91	3407	53	575D	4.0	34.0
		117	0.25	13.52	2575	35			
		239	5.17	11.06	95	0			
420426	000525	93	0.52	14.35	3367	51	625D	8.0	32.0
		101	0.11	13.86	2887	35			
		204	6.07	10.67	82	0			
420442	000563	67	0.24	13.79	3189	50	500D	6.0	32.0
		91	0.12	13.36	2796	35			
		271	5.74	10.76	99	0			
420474	000623	110	0.70	14.01	3296	51	575D	12.0	29.0
		139	0.16	14.05	2980	35			
		288	6.92	9.56	79	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420505	000663	123	1.46	13.43	2812	50	675D	12.0	33.0
		124	0.22	13.75	2888	35			
		151	1.03	13.76	241	0			
420524	000697	98	0.91	14.18	2883	50	600D	4.0	32.0
		107	0.17	13.81	2661	35			
		200	6.03	10.90	101	0			
420645	000982	59	0.22	10.78	523	49	950N	16.0	35.0
		84	0.13	9.43	190	35			
		904	1.85	8.46	53	0			
420602	000863	893	0.58	9.04	49	0	750N	4.0	28.0
		164	0.70	11.70	377	34			
		201	2.59	11.83	1669	51			
420094	000091	118	0.27	14.11	2897	50	625D	4.0	31.0
		155	0.32	14.50	1570	34			
		288	7.30	9.93	61	0			
420043	000042	118	0.14	13.44	3618	49	700D	-7.0	30.0
		177	0.37	13.66	2666	34			
		232	3.32	12.37	166	0			
420062	000060	105	0.13	13.42	2937	50	600D	0.0	36.0
		187	0.38	13.56	2113	34			
		221	3.78	12.42	94	0			
420081	000083	82	0.11	12.93	2319	49	650D	4.0	33.0
		182	0.14	13.49	2762	34			
		111	0.07	13.26	315	0			
420096	000094	98	0.10	13.10	2819	49	650D	10.0	30.0
		161	0.17	13.20	2228	34			
		219	1.75	13.33	219	0			
420170	000170	114	0.10	13.39	3248	50	600D	9.0	30.0
		210	0.38	14.15	2645	35			
		271	4.66	11.51	112	0			
420187	000187	83	0.11	12.71	2221	50	625D	4.0	37.0
		154	0.31	13.79	2523	36			
		211	3.48	12.56	113	0			
420188	000188	96	0.59	14.35	2484	51	600D	0.0	32.0
		141	0.35	13.75	2307	35			
		152	1.90	13.65	225	0			
420205	000205	118	0.15	13.58	2686	50	575D	4.0	35.0
		197	0.14	13.70	2661	36			
		180	0.92	14.18	293	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	CWL
420336	000380	92	0.10	13.06	2940	51	595D	6.0	28.0
		174	0.26	13.77	2593	36			
		252	4.03	11.77	131	0			
420261	000261	64	0.10	13.02	2004	51	800D	6.0	35.0
		163	0.19	13.65	2489	35			
		154	1.26	14.02	240	0			
420392	000491	113	0.08	12.68	3148	51	650D	8.0	32.0
		176	0.17	13.42	3016	35			
		199	2.05	13.51	171	0			
420415	000514	112	0.33	13.23	2718	52	700D	9.0	30.0
		188	0.22	13.14	2804	35			
		141	0.71	14.19	229	0			
420437	000558	86	0.19	12.62	2694	51	575D	5.0	38.0
		192	0.48	13.35	2822	35			
		416	6.20	9.96	136	0			
420509	000667	113	0.10	12.95	3056	50	600D	9.0	31.0
		189	0.23	13.77	3096	35			
		230	3.74	12.21	84	0			
420634	000921	122	0.09	12.80	3536	49	675D	12.0	30.0
		205	0.80	13.29	2280	36			
		210	1.96	13.10	169	0			
420109	000110	157	0.68	14.02	2954	49	575D	12.0	25.0
		180	0.19	14.02	2108	34			
		334	6.22	10.46	63	0			
420190	000190	147	0.30	14.32	3189	50	760D	10.0	30.0
		163	0.14	13.74	2398	35			
		213	5.16	11.23	92	1			
420191	000191	164	0.45	14.39	2735	50	650D	9.0	32.0
		198	1.59	13.47	962	34			
		258	5.75	10.43	63	0			
420449	000572	224	0.10	13.69	3329	53	550D	9.0	31.0
		315	0.10	13.55	2979	36			
		270	5.45	10.74	76	0			
420458	000606	105	0.12	13.67	3920	51	600D	9.0	30.0
		135	0.14	13.45	3068	35			
		273	2.08	12.63	247	0			
420580	000839	93	0.07	12.80	2025	47	500D	6.0	30.0
		115	0.07	13.14	1379	34			
		399	3.40	7.18	59	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420591	000852	103	0.09	14.24	3890	50	600D	12.0	30.0
		123	0.16	14.15	2336	36			
		583	8.35	9.17	63	0			
420397	000496	108	0.08	13.51	4167	51	675D	9.0	30.0
		135	0.07	12.52	2607	35			
		145	0.23	13.42	179	0			
420398	000497	108	0.55	14.44	3329	52	700D	3.0	32.0
		99	0.12	14.09	2603	36			
		130	0.10	13.99	771	0			
420408	000507	135	1.07	13.35	3520	50	650D	8.0	34.0
		250	0.95	12.86	2222	35			
		360	5.56	11.08	96	0			
420444	000565	82	0.11	13.10	3230	50	500D	6.0	32.0
		149	0.09	13.07	3292	35			
		256	3.34	12.37	101	0			
420445	000566	133	0.50	14.61	3648	50	450D	6.0	30.0
		160	0.10	14.35	3836	35			
		362	7.16	10.03	66	0			
420049	000047	137	0.35	14.32	2589	49	500D	4.0	30.0
		219	1.36	13.39	1773	35			
		224	3.48	12.14	95	0			
420055	000056	133	1.10	14.15	2067	50	700N	-6.0	36.0
		157	0.73	13.76	1810	35			
		204	5.76	10.94	94	0			
420112	000113	138	0.97	14.25	1747	49	450D	2.0	32.0
		249	1.20	13.82	1664	35			
		324	9.99	8.45	54	0			
420390	000489	143	1.21	13.71	1758	51	600D	10.0	32.0
		237	1.75	13.15	1481	35			
		180	2.92	12.74	79	0			
420461	000609	122	0.39	14.23	2726	50	600D	10.0	30.0
		203	0.99	13.61	2126	36			
		238	6.89	10.03	70	0			
420467	000615	109	0.57	14.37	2201	51	600D	5.0	25.0
		542	0.86	13.98	1313	36			
		467	5.69	10.84	93	0			
420483	000631	95	0.17	13.64	2558	51	525D	4.0	31.0
		202	0.78	13.53	2227	35			
		213	5.03	10.24	74	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420493	000651	95	0.39	13.90	2138	50	490D	4.0	33.0
		190	1.26	13.35	1621	35			
		158	1.85	13.19	85	0			
420494	000652	122	0.27	14.07	2393	49	575D	6.0	34.0
		225	0.95	13.62	1834	35			
		220	3.26	12.51	72	0			
420564	000781	96	0.31	14.41	2803	51	575D	10.0	34.0
		154	0.50	13.75	2636	35			
		149	2.04	12.52	112	0			
420635	000969	65	0.56	12.88	917	49	460D	8.0	33.0
		112	1.19	12.71	476	36			
		315	8.35	7.85	44	0			
420115	000118	90	0.06	13.61	3073	49	600D	9.0	31.0
		148	0.15	14.30	2551	34			
		180	4.33	11.27	92	0			
420457	000605	33	0.09	13.57	2183	49	500D	8.0	30.0
		49	0.10	14.26	1780	36			
		220	4.74	11.22	72	0			
420581	000840	90	0.07	13.94	2936	47	650D	10.0	30.0
		157	0.54	14.22	2551	37			
		112	0.31	13.75	132	0			
420590	000851	37	0.09	13.75	2109	51	600D	10.0	30.0
		137	0.25	14.33	2518	36			
		195	1.98	12.38	109	0			
420630	000916	38	0.11	13.97	1781	50	525D	8.0	30.0
		135	0.50	14.20	2098	36			
		202	3.25	12.14	123	0			
420589	000850	130	0.09	13.85	2924	51	600D	10.0	30.0
		237	0.32	14.23	2318	37			
		292	3.97	12.03	118	0			
420168	000168	80	0.12	14.31	3714	48	675D	8.0	30.0
		111	0.18	14.77	2274	35			
		163	3.93	12.30	67	0			
420290	000304	103	0.71	14.00	2513	50	700D	5.0	32.0
		193	1.91	13.38	1398	34			
		141	2.46	12.55	108	0			
420423	000522	89	0.20	13.95	3089	50	650D	8.0	30.0
		179	0.52	14.42	1860	29			
		131	2.91	12.74	90	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMCDE TEST DATA IRPM	BT	DWL
420453	000576	50	0.23	14.25	2637	50	550D	8.0	30.0
		113	0.81	14.24	1918	36			
		113	1.97	12.90	70	0			
420592	000853	89	1.26	13.91	1330	50	600D	8.0	30.0
		84	1.70	13.61	579	36			
		287	6.59	10.50	107	0			
420629	000912	111	0.81	13.98	2381	50	580D	12.0	27.0
		154	1.92	13.48	1146	36			
		245	5.33	10.28	88	0			
420171	000171	107	0.75	14.03	2618	51	630D	6.0	30.0
		201	1.86	13.57	1509	35			
		206	3.84	12.00	76	0			
420469	000617	70	0.15	14.58	2964	51	600D	0.0	30.0
		124	0.51	14.61	1801	35			
		161	4.49	11.94	95	0			
420476	000618	65	0.11	14.24	3321	50	575D	4.0	24.0
		124	0.22	14.69	2438	35			
		243	7.30	10.06	76	0			
420497	000655	69	0.09	13.87	3011	49	525D	9.0	34.0
		155	0.65	14.52	2162	34			
		217	3.98	11.99	81	0			
420015	000026	75	0.20	14.18	2740	50	600D	-6.0	31.0
		178	1.58	13.69	1519	34			
		205	3.30	12.57	102	0			
420023	000027	75	0.34	14.26	2287	50	500D	-4.0	29.0
		163	1.27	13.93	1508	35			
		354	8.82	9.05	60	0			
420033	000007	85	1.01	14.08	1684	50	600D	-6.0	30.0
		143	1.74	13.38	1046	35			
		96	0.70	14.13	141	0			
420036	000033	113	0.0	14.16	2882	50	450D	-2.0	27.0
		193	2.25	13.21	1168	34			
		453	10.42	8.24	52	0			
420050	000048	88	0.62	14.49	2233	49	450D	-4.0	32.0
		176	1.71	13.75	1258	35			
		324	8.94	8.89	65	0			
420066	000073	92	0.44	14.40	2744	49	600D	-6.0	30.0
		169	1.53	13.65	1548	33			
		192	2.38	13.17	121	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	CWL
420068	000072	70	0.23	14.39	2172	49	600D	-4.0	31.0
		191	1.94	13.58	1157	35			
		222	6.34	10.71	86	0			
420100	000101	104	0.51	14.24	2430	49	400D	6.0	27.0
		221	1.17	13.65	1664	34			
		418	9.06	8.39	51	0			
420082	000082	150	0.19	14.15	3976	48	600D	4.0	30.0
		191	0.29	14.18	2457	34			
		172	2.39	12.93	114	0			
420125	000123	137	0.08	13.59	3971	49	525D	4.0	32.0
		188	0.19	14.37	2498	35			
		256	4.90	10.87	91	0			
420217	000217	128	0.08	13.63	3946	50	500D	2.0	30.0
		177	0.13	14.47	2651	35			
		209	2.10	13.30	136	0			
420262	000262	130	0.10	13.89	4040	52	575D	6.0	31.0
		187	0.18	14.45	3078	36			
		224	2.50	12.67	122	0			
420389	000488	149	0.11	14.09	4168	51	600D	6.0	30.0
		233	0.55	14.42	2615	35			
		239	4.69	11.71	105	0			
420448	000569	155	0.18	14.00	4177	49	500D	6.0	30.0
		210	0.32	14.22	3111	37			
		208	3.06	12.59	95	0			
420464	000612	123	0.30	14.29	3827	49	650D	6.0	29.0
		180	0.60	14.23	2587	35			
		178	3.09	12.39	118	0			
420501	000659	136	0.12	13.13	4047	50	550D	6.0	32.0
		248	0.16	13.66	3505	35			
		340	5.86	10.26	76	0			
420502	000660	121	0.10	13.89	4171	50	575D	6.0	30.0
		172	0.39	14.48	2596	35			
		207	3.54	12.46	100	0			
420504	000662	123	0.18	13.90	4080	51	700D	0.0	27.0
		176	0.49	14.07	2468	35			
		195	4.03	11.93	114	0			
420588	000849	104	0.13	14.07	4179	47	600D	6.0	30.0
		152	0.47	14.20	3635	36			
		623	4.58	11.17	98	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420149	000149	99	0.07	13.91	3595	49	700D	7.0	31.0
		144	0.63	14.44	2155	35			
		190	6.88	9.96	85	0			
420157	000157	73	0.08	13.48	2475	50	475D	7.5	30.0
		162	0.43	14.38	2508	35			
		230	8.05	9.00	75	0			
420402	000501	83	0.10	13.47	3609	51	600D	8.0	31.0
		147	0.23	14.77	3250	35			
		170	3.00	12.81	141	0			
420459	000607	77	0.10	13.60	2881	51	525D	7.5	32.0
		163	0.55	14.33	2680	36			
		192	5.03	10.76	79	0			
420465	000613	186	0.73	14.12	2873	51	600D	7.5	31.0
		179	1.17	13.91	2452	36			
		101	0.40	14.07	284	0			
420490	000637	67	0.08	13.25	3507	50	650D	10.0	33.0
		137	0.51	14.38	2959	35			
		117	1.21	13.86	252	0			
420579	000838	65	0.07	13.53	3149	48	550D	6.0	30.0
		146	0.58	14.02	2718	35			
		155	2.96	12.23	155	0			
420200	000200	169	3.71	12.11	1132	38	1275N	0.0	36.0
		130	0.14	14.04	1741	25			
		154	2.60	12.97	114	0			
420393	000492	197	4.66	11.41	724	37	700N	0.0	33.0
		137	1.31	13.71	1088	25			
		278	7.73	8.98	99	0			
420419	000518	127	2.57	13.02	1378	38	650N	0.0	43.0
		100	0.10	13.76	1547	25			
		105	0.29	14.16	82	0			
420577	000836	129	3.23	12.56	1319	39	600D	0.0	32.0
		108	0.08	13.66	2566	26			
		115	1.71	11.37	117	0			
420034	000012	135	3.86	12.12	1436	38	750N	0.0	36.0
		168	0.40	14.43	2403	25			
		115	4.75	8.86	64	0			
420064	000066	97	0.25	13.66	2867	37	800N	-2.0	35.0
		191	1.08	14.15	1817	25			
		348	11.12	7.53	52	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420103	000104	119	0.81	14.23	2922	37	950N	4.0	36.0
		136	0.07	14.13	2128	26			
		98	1.70	13.97	98	0			
420106	000107	141	3.78	12.27	1628	44	825N	0.0	35.0
		250	0.07	12.44	3125	33			
		225	1.58	13.58	105	0			
420152	000152	142	1.90	13.46	1947	37	800D	4.0	34.0
		209	0.19	14.47	2485	25			
		203	4.45	11.70	89	0			
420162	000162	80	0.12	13.86	3326	39	850N	0.0	30.0
		196	0.19	14.42	3075	25			
		182	5.59	11.06	73	0			
420164	000164	118	0.89	13.62	2862	38	800N	2.0	30.0
		243	0.08	13.72	3350	25			
		105	1.05	14.43	92	0			
420166	000166	99	0.66	13.09	2262	39	850N	0.0	37.0
		163	0.07	14.19	3006	25			
		112	3.36	12.75	64	0			
420172	000172	160	2.80	12.96	1555	36	875N	-4.0	35.0
		366	3.35	12.65	1129	25			
		265	4.16	11.85	67	0			
420180	000180	106	1.23	13.92	2356	38	800N	2.0	29.0
		227	0.13	14.56	2416	25			
		187	4.96	11.43	65	0			
420184	000184	103	1.23	13.42	2779	38	925N	2.0	36.0
		106	0.09	14.28	2300	25			
		120	3.41	12.67	68	0			
420193	000193	111	0.88	12.98	2106	38	850N	0.0	35.0
		253	0.87	13.29	2256	25			
		160	4.93	11.48	91	0			
420197	000197	98	0.79	13.99	3419	43	750N	0.0	39.0
		115	0.08	14.22	2042	25			
		133	2.12	13.51	93	0			
420199	000199	83	0.64	13.43	2900	38	800N	0.0	34.0
		135	0.51	14.44	2462	24			
		134	5.92	10.77	83	0			
420203	000203	97	1.04	13.86	2868	38	900D	0.0	32.0
		119	0.16	14.76	1974	25			
		146	4.66	11.82	90	0			

DETROIT CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
420466	000614	126	4.14	11.85	1263	25	725D	0.0	35.0
		156	0.30	14.13	3676	20			
		107	2.44	7.81	58	0			

TABLE E-5

Denver

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	AT	DWL
520014	100563	118	0.63	13.81	3786	45	600D	6.0	32.0
		185	1.79	13.12	2710	30			
		209	4.85	11.34	180	0			
520128	100511	139	2.13	13.17	2019	45	800N	9.0	33.0
		198	2.05	13.22	1624	30			
		129	2.55	12.91	119	0			
520129	100465	92	0.19	14.03	3612	46	650N	6.0	27.0
		180	0.41	13.97	2464	30			
		90	0.37	14.12	161	0			
520139	100564	145	0.66	13.99	2312	45	700N	3.0	30.0
		252	2.27	13.19	865	30			
		314	5.06	11.22	101	0			
520150	100492	122	0.12	13.51	3327	45	560D	6.0	30.0
		184	0.05	12.88	3050	30			
		200	0.51	13.74	407	0			
520185	100585	116	0.26	14.11	3367	45	600D	3.0	32.0
		171	0.14	13.97	3514	30			
		231	3.87	12.18	222	0			
520308	100596	186	0.05	13.64	2966	45	500D	5.0	32.0
		351	0.27	13.82	2314	30			
		446	3.58	12.04	153	0			
520309	100594	86	0.15	12.91	2479	45	560D	5.0	29.0
		160	0.17	13.59	1890	30			
		292	2.19	12.93	314	0			
520323	100614	147	1.20	13.88	2525	46	1200N	20.0	32.0
		221	2.70	13.08	1306	31			
		179	2.91	12.82	121	0			
520315	100610	141	0.27	14.09	3871	45	860N	3.0	31.0
		238	0.68	13.97	2845	31			
		159	2.53	13.10	131	0			
520067	100057	167	4.01	11.74	1018	44	480D	4.0	34.0
		189	0.58	13.88	2565	31			
		163	1.28	12.53	185	0			
520312	100605	149	5.92	10.80	822	45	550D	3.0	36.0
		171	1.15	13.82	2763	31			
		152	2.38	13.22	273	0			
520015	100017	117	0.89	13.50	1772	44	450D	1.0	37.0
		121	0.64	13.61	889	30			
		200	3.28	12.10	98	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520173	100432	207	1.20	13.32	2704	46	650D	6.0	28.0
		200	0.76	13.50	1662	31			
		185	2.68	12.26	224	0			
520211	100521	144	0.61	13.49	2353	45	500D	5.0	26.0
		177	1.34	13.41	1067	31			
		227	4.49	13.44	123	0			
520310	100595	177	0.96	13.73	2983	46	500D	5.0	29.0
		192	1.03	13.58	1181	31			
		281	5.29	10.94	95	0			
520314	100603	196	0.93	13.61	2875	50	560D	5.0	27.0
		278	1.69	13.32	2086	36			
		250	4.72	11.35	127	0			
520304	100591	127	0.35	10.89	2877	45	650N	6.0	28.0
		144	0.75	10.21	2290	30			
		89	2.16	10.37	68	0			
520068	100514	266	1.55	13.29	2888	50	600D	4.0	25.0
		327	1.22	13.28	2769	35			
		180	0.40	13.43	231	0			
520243	100496	226	2.72	12.52	2383	49	600D	6.0	27.0
		259	1.16	13.28	2414	35			
		235	4.43	10.85	97	0			
520151	100118	313	7.52	9.43	598	45	625D	1.0	42.0
		216	0.17	12.78	2865	30			
		201	0.70	13.14	357	0			
520264	100577	256	6.77	10.04	784	46	700D	3.0	38.0
		265	1.27	13.40	2897	31			
		238	1.73	12.53	509	0			
520302	100584	198	6.14	10.36	917	45	1000N	10.0	40.0
		242	4.06	11.90	1429	31			
		165	2.61	12.95	151	0			
520317	100612	194	3.70	12.33	1719	46	750N	4.0	43.0
		275	3.43	12.49	1663	30			
		176	0.25	12.79	151	0			
520020	100544	208	8.22	9.21	394	45	690D	6.0	38.0
		218	3.41	12.33	1516	30			
		181	4.01	11.43	143	0			
520022	100616	274	8.64	9.14	435	46	560D	3.0	42.0
		281	2.65	12.96	1900	30			
		343	9.04	8.85	94	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520076	100291	152	2.14	13.07	2930	45	800N	3.0	42.0
		173	1.32	13.50	2676	30			
		281	8.63	9.14	118	0			
520110	100508	168	2.56	12.78	2247	45	570D	6.0	37.0
		260	3.06	12.50	1818	31			
		304	6.62	9.60	96	0			
520206	100510	169	5.80	10.57	966	46	600D	4.0	37.0
		182	1.48	13.30	2790	30			
		224	4.25	11.59	172	0			
520210	100545	255	8.05	9.29	446	46	620D	4.0	32.0
		239	3.20	12.48	1541	30			
		188	3.17	12.21	128	0			
520216	100526	193	7.33	9.63	571	46	600D	6.0	30.0
		174	1.02	13.55	3180	31			
		189	4.33	11.30	169	0			
520245	100495	261	1.96	12.80	2410	45	500N	6.0	37.0
		369	1.35	13.08	2277	31			
		562	9.80	7.35	89	0			
520259	100469	234	6.43	10.22	756	46	550D	5.0	42.0
		255	1.53	13.34	3054	31			
		297	6.12	10.30	146	0			
520262	100536	218	6.25	10.44	733	46	650D	0.0	40.0
		217	1.31	13.51	2868	30			
		243	5.49	10.48	148	0			
520276	100509	191	1.95	12.90	2708	45	550D	6.0	31.0
		267	1.01	13.44	3157	30			
		348	6.39	9.82	113	0			
520300	100587	169	2.66	12.79	2255	45	660D	0.0	45.0
		234	1.88	13.15	2177	30			
		329	8.47	9.02	94	0			
520301	100590	233	5.74	10.79	1038	45	550D	10.0	34.0
		288	1.36	13.54	2520	31			
		450	7.60	9.22	99	0			
520016	100130	188	2.83	12.14	1498	45	550D	0.0	30.0
		208	0.31	13.32	2271	30			
		379	6.01	9.90	104	0			
520017	100534	171	3.25	12.47	1336	45	680D	0.0	28.0
		192	1.43	13.52	2022	30			
		170	3.15	12.48	142	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520066	100044	174	2.79	12.59	1362	45	580D	2.0	31.0
		244	1.23	13.48	2164	31			
		115	0.11	13.47	203	0			
520082	100535	195	2.42	13.06	1937	50	550D	4.0	29.0
		276	1.35	13.54	2201	36			
		414	6.65	9.93	91	0			
520098	100547	190	3.22	12.64	1191	46	560D	1.0	31.0
		268	1.46	13.57	1398	30			
		288	6.17	10.38	84	0			
520100	100429	150	2.45	12.97	1696	50	650N	5.0	30.0
		249	2.74	12.80	1382	35			
		439	10.10	8.11	68	0			
520104	100220	149	2.04	10.30	1887	45	640D	0.0	35.0
		206	0.66	10.95	3011	30			
		230	3.45	9.38	187	0			
520114	100468	149	2.92	12.74	1265	46	600D	6.0	27.0
		119	0.48	13.47	984	30			
		247	7.75	9.34	80	0			
520118	100049	162	1.89	13.30	1951	45	550D	-8.0	23.0
		217	0.84	13.69	3004	30			
		250	2.40	12.79	165	0			
520126	100065	193	2.10	12.37	1725	45	700N	2.0	35.0
		256	1.38	12.38	1622	30			
		208	2.60	12.09	134	0			
520140	100528	151	1.84	13.35	1881	46	650D	6.0	31.0
		163	0.22	13.94	2145	31			
		173	3.32	12.33	123	0			
520157	100478	227	2.62	12.73	1302	46	600D	9.0	35.0
		284	0.97	13.63	1749	31			
		281	4.88	10.96	115	0			
520161	100540	143	1.44	13.75	2221	45	900D	4.0	28.0
		182	0.75	14.11	2332	30			
		205	5.65	11.00	135	0			
520204	100438	201	2.54	12.93	1758	46	700D	10.0	30.0
		255	0.81	13.74	2785	30			
		314	7.04	9.91	123	0			
520248	100470	165	2.88	12.67	1133	46	655D	6.0	35.0
		201	0.80	13.70	1874	31			
		157	1.84	13.29	225	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA RPM	BT	DWL
520252	100505	203	4.55	11.34	821	50	600D	10.0	31.0
		208	1.90	13.14	1419	35			
		316	9.98	7.89	85	0			
520258	100386	247	3.00	12.56	1217	50	600D	8.0	30.0
		276	1.26	13.49	1620	35			
		284	3.20	12.06	116	0			
520267	100527	149	2.09	13.26	1052	45	750D	6.0	30.0
		176	0.44	13.91	2841	31			
		165	1.81	13.37	187	0			
520272	100551	182	8.34	9.47	220	50	640D	-10.0	33.0
		201	3.68	12.43	396	35			
		232	8.15	8.99	111	0			
520360	100696	243	2.91	12.04	1087	46	500D	0.0	30.0
		326	0.28	14.04	1972	30			
		404	4.33	11.90	93	0			
520004	100131	168	1.59	12.70	2489	50	650D	4.0	35.0
		238	0.94	12.90	2708	35			
		169	3.24	11.73	129	0			
520091	100025	224	5.19	10.89	767	50	600N	2.0	35.0
		121	0.32	13.37	1755	35			
		246	4.66	11.31	143	0			
520132	100161	178	3.05	11.72	2120	50	600D	13.0	30.0
		132	1.70	12.45	2393	35			
		235	3.35	11.26	124	0			
520181	100292	156	1.26	13.16	3039	49	630D	6.0	30.0
		149	0.21	12.65	2401	35			
		120	0.06	12.65	155	0			
520190	100257	123	1.37	13.44	2351	48	600D	3.0	33.0
		143	1.14	13.11	1601	35			
		192	4.87	11.52	98	0			
520218	100471	179	2.77	12.79	1914	50	600D	8.0	35.0
		223	0.94	13.60	2765	36			
		278	6.26	10.07	108	0			
520250	100419	155	2.63	12.85	1827	50	650D	2.0	35.0
		227	2.19	13.11	1679	35			
		215	5.79	10.65	94	0			
520255	100500	101	0.46	13.34	2288	50	600D	10.0	37.0
		182	0.81	13.76	2503	36			
		233	0.11	13.65	227	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520285	100546	121	1.75	13.44	2414	50	550D	10.0	31.0
		147	0.26	13.74	2677	35			
		203	5.14	11.14	103	0			
520307	100597	264	3.74	8.45	182	51	550D	0.0	32.0
		208	2.01	13.18	909	35			
		242	4.75	11.04	116	0			
520002	100045	135	2.01	13.12	1543	50	500D	1.0	35.0
		183	1.53	13.30	1532	35			
		167	3.19	12.05	106	0			
520003	100109	161	2.82	12.70	1740	50	600D	5.0	33.0
		216	2.12	13.19	1615	35			
		233	6.46	10.18	113	0			
520071	100015	208	4.48	11.53	886	49	650D	7.0	31.0
		282	4.18	11.76	791	35			
		355	8.93	8.93	68	0			
520265	100570	188	6.16	10.42	621	50	700D	9.0	28.0
		239	4.83	11.31	536	35			
		303	6.54	9.57	81	0			
520141	100272	135	1.85	12.96	2739	44	725D	6.0	38.0
		240	1.28	13.14	2238	30			
		307	7.13	8.70	68	0			
520329	100632	401	2.07	12.13	2488	46	870N	12.0	39.0
		395	2.23	11.76	1879	30			
		1813	4.71	4.94	42	0			
520125	100530	175	3.67	12.34	1339	51	530D	8.0	35.0
		284	2.31	12.99	1642	36			
		379	9.13	8.42	83	0			
520183	100439	200	5.33	11.01	1088	51	900D	10.0	30.0
		234	4.08	11.78	1503	35			
		343	8.66	9.00	129	0			
520188	100250	120	2.59	13.11	1089	50	625D	2.0	32.0
		142	2.17	13.37	599	35			
		231	4.98	10.92	81	0			
520214	100475	160	2.58	12.68	1751	50	700D	9.0	31.0
		234	2.32	12.47	1566	35			
		155	1.89	8.37	65	0			
520263	100481	188	2.42	12.58	1910	49	825N	10.0	32.0
		295	3.29	12.02	1004	35			
		208	0.85	13.02	90	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520320	100624	158	4.04	12.01	1329	49	680D	10.0	35.0
		287	5.64	10.69	843	34			
		728	6.88	7.93	73	0			
520325	100621	2802	3.05	9.50	857	48	660N	2.0	38.0
		162	4.09	8.20	514	34			
		92	4.67	6.32	64	0			
520005	100232	315	0.53	13.73	3390	37	775N	9.0	30.0
		350	0.09	13.32	2252	22			
		834	0.13	10.20	74	0			
520260	100506	309	1.28	13.69	2922	38	500D	8.0	31.0
		427	1.70	13.43	1906	23			
		457	9.39	8.52	72	0			
520270	100474	347	2.67	12.66	1236	37	800N	6.0	34.0
		314	3.69	11.97	300	22			
		184	3.40	12.16	113	0			
520299	100588	324	5.39	10.95	887	45	660N	6.0	37.0
		318	0.66	13.73	2152	30			
		244	6.74	10.15	106	0			
520305	100589	330	4.68	11.51	936	45	780N	6.0	37.0
		324	1.19	13.69	2229	30			
		115	0.57	13.71	131	0			
520018	100261	248	0.11	13.17	4112	38	600D	5.0	37.0
		363	0.11	13.06	3177	23			
		323	4.42	11.58	162	0			
520083	100155	291	4.71	10.07	733	37	700D	-5.0	40.0
		307	3.26	11.09	838	23			
		129	0.90	12.61	412	0			
520101	100139	228	0.52	13.78	3389	37	600D	0.0	30.0
		260	0.49	13.56	2593	24			
		247	5.43	10.86	128	0			
520107	100067	297	2.29	12.57	2009	39	680N	8.0	38.0
		507	6.86	9.53	320	24			
		241	6.94	9.63	94	0			
520174	100218	204	0.07	10.13	4108	37	550D	-6.0	39.0
		304	0.30	10.50	1933	22			
		259	3.75	8.50	145	0			
520240	100504	279	1.10	13.70	2930	38	530D	-2.0	38.0
		334	0.43	13.83	2547	23			
		314	4.98	11.04	136	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520256	100388	245	0.24	13.80	3376	38	563D	8.0	40.0
		263	0.07	12.69	1855	22			
		235	2.63	12.95	161	0			
520266	100507	253	1.81	13.30	2141	37	800D	4.0	37.0
		277	2.06	13.24	870	22			
		169	5.44	10.93	107	0			
520019	100056	228	1.22	13.62	2447	45	520D	0.0	32.0
		272	1.91	13.24	1286	30			
		323	7.91	9.60	94	0			
520021	100138	137	0.56	13.50	2666	49	550D	0.0	30.0
		173	1.41	13.43	1479	35			
		225	4.70	11.41	158	0			
520044	100501	255	1.25	13.34	2830	50	600D	8.0	31.0
		270	1.68	13.19	1444	35			
		196	3.54	13.87	229	0			
520112	100572	232	1.35	13.37	2269	45	640D	8.0	29.0
		184	1.61	13.39	886	30			
		204	0.66	13.61	301	0			
520166	100176	296	0.36	10.77	3602	45	550D	8.0	31.0
		326	0.85	10.66	1878	30			
		342	3.62	9.25	125	0			
520175	100271	248	1.02	13.42	3068	50	670D	6.0	31.0
		373	2.54	12.68	1786	35			
		217	1.55	13.44	243	0			
520176	100493	270	0.81	12.99	2335	45	600N	8.0	31.0
		269	0.27	13.32	1174	30			
		246	2.90	12.71	108	0			
520177	100228	268	0.83	10.52	3324	50	550D	8.0	30.0
		354	1.51	10.46	2051	35			
		389	4.11	9.14	127	0			
520221	100334	194	0.84	13.77	2705	45	600D	6.0	35.0
		176	0.97	13.84	1196	30			
		142	2.03	13.46	218	0			
520227	100491	304	2.41	12.59	2199	45	600D	8.0	31.0
		329	1.38	13.17	2191	30			
		287	2.16	13.04	162	0			
520229	100293	244	1.26	13.33	2734	45	600D	8.0	32.0
		212	1.85	13.26	1078	31			
		250	0.13	13.89	368	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520241	100442	166	1.59	13.34	1885	49	900N	8.0	30.0
		297	1.31	13.44	1753	36			
		120	2.18	13.31	150	0			
520253	100549	241	1.09	13.64	2821	45	570D	6.0	25.0
		295	1.40	13.33	1847	30			
		223	1.78	13.50	192	0			
520289	100606	234	0.90	13.35	3727	45	560D	8.0	28.0
		243	1.00	13.51	2040	30			
		217	0.48	13.99	197	0			
520311	100599	218	0.86	13.47	3070	45	550D	8.0	31.0
		226	1.45	13.35	1694	30			
		168	0.49	14.12	208	0			
520051	100050	164	1.45	13.51	2487	50	550D	-10.0	24.0
		238	1.91	13.31	1881	36			
		460	9.68	8.56	76	0			
520057	100009	171	1.50	13.28	1589	49	420D	7.0	33.0
		233	1.36	13.44	1016	35			
		530	8.15	9.23	78	0			
520061	100100	176	0.93	13.78	3610	45	650D	6.0	32.0
		253	1.76	13.33	2457	31			
		284	3.43	12.46	242	0			
520074	100021	196	1.48	13.07	2274	45	600D	10.0	34.0
		270	1.26	13.32	1833	30			
		231	1.95	13.21	269	0			
520124	100061	167	1.62	12.93	2311	50	400D	8.0	31.0
		264	1.03	13.43	2543	35			
		202	0.29	13.29	282	0			
520167	100485	265	1.87	13.15	2184	50	550D	8.0	31.0
		367	2.58	12.79	1651	36			
		385	5.22	11.19	120	0			
520189	100280	180	1.04	13.20	2763	50	550D	5.0	31.0
		326	2.05	12.99	1800	35			
		397	5.47	10.79	143	0			
520198	100479	160	1.27	13.40	2632	51	570D	8.0	30.0
		258	1.58	13.30	2115	36			
		305	4.78	11.46	165	0			
520203	100487	196	1.68	13.29	2074	45	920D	7.0	31.0
		248	0.96	13.67	1788	30			
		200	1.39	13.52	272	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	HT	DWL
520207	100566	109	1.11	13.78	2133	50	620D	9.0	28.0
		118	1.12	13.63	1323	35			
		203	4.90	11.56	165	0			
520226	100476	234	2.46	13.02	2266	44	600D	8.0	31.0
		279	1.92	13.29	2242	30			
		244	4.84	11.64	168	0			
520233	100503	172	1.18	13.60	2460	45	600D	8.0	31.0
		215	1.60	13.36	1565	30			
		282	5.87	10.78	104	0			
520235	100629	125	1.77	13.27	1500	44	640D	4.0	31.0
		186	1.23	13.67	1446	30			
		199	1.78	13.48	252	0			
520251	100489	181	1.63	13.45	1941	46	500D	8.0	28.0
		256	0.94	13.76	1663	31			
		337	6.23	10.64	106	0			
520254	100455	132	0.62	13.81	2468	45	700D	8.0	30.0
		159	0.31	13.61	1959	31			
		140	0.16	13.33	222	0			
520318	100622	139	1.09	13.59	2279	48	600D	8.0	30.0
		220	1.37	13.53	2090	35			
		237	2.68	12.99	207	0			
520355	100708	236	2.04	13.22	1986	46	550D	8.0	29.0
		274	0.58	13.81	2305	30			
		130	0.06	13.70	355	0			
520372	100791	285	4.00	12.13	1075	45	600N	10.0	29.0
		266	2.90	12.85	544	30			
		284	7.25	10.21	37	0			
520058	100209	189	1.15	10.15	2956	49	700D	8.0	25.0
		262	1.38	10.10	2050	35			
		367	3.61	8.83	211	0			
520086	100231	168	0.55	13.54	3150	50	550D	8.0	30.0
		262	0.77	13.60	2779	36			
		412	6.41	10.31	125	0			
520095	100532	122	0.46	14.00	2522	50	700D	8.0	28.0
		134	0.53	14.00	1288	36			
		169	0.52	14.11	352	0			
520146	100101	339	5.89	10.69	749	50	600D	20.0	21.0
		338	1.92	13.26	2380	35			
		413	1.71	13.42	328	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520168	100413	148	0.57	13.99	2844	50	600D	8.0	30.0
		322	2.02	13.30	2050	36			
		306	6.83	10.34	100	0			
520171	100188	141	0.35	10.93	3788	50	550D	8.0	33.0
		175	0.34	10.90	3060	35			
		205	3.53	9.39	131	0			
520178	100262	231	2.40	12.88	2127	50	650D	8.0	35.0
		377	1.97	12.95	2493	35			
		439	7.53	9.54	110	0			
520193	100270	116	0.78	13.45	2653	50	550D	7.0	31.0
		248	1.31	13.34	2150	35			
		242	2.30	13.33	187	0			
520222	100499	240	1.90	13.16	2768	50	580D	8.0	31.0
		233	0.71	13.53	2457	35			
		220	4.18	12.03	161	0			
520223	100472	209	2.93	12.71	2074	49	675D	8.0	34.0
		223	2.16	13.20	1921	35			
		198	6.15	10.70	135	0			
520353	100684	180	2.33	13.06	1489	50	600D	8.0	30.0
		151	1.54	13.48	1065	36			
		214	5.06	11.30	138	0			
520366	100697	223	2.29	13.19	1853	50	550D	8.0	29.0
		236	1.07	13.90	2014	35			
		403	6.56	10.52	125	0			
520249	100466	262	3.79	12.02	1378	50	750N	8.0	30.0
		375	2.63	12.81	1451	35			
		218	4.12	11.96	114	0			
520335	100659	230	3.31	12.25	1790	50	650N	12.0	30.0
		291	0.67	13.71	2524	35			
		405	6.87	9.92	108	0			
520337	100635	199	2.29	13.05	1955	49	460D	-2.0	37.5
		239	1.07	13.75	1749	34			
		407	7.11	9.97	98	0			
520010	100006	171	2.05	12.76	2743	45	500D	0.0	46.0
		229	2.49	12.55	1996	30			
		404	9.13	7.34	56	0			
520070	100081	113	1.60	13.00	1890	45	600D	-6.0	39.0
		230	2.83	12.78	1506	30			
		171	5.31	11.28	129	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520113	100047	129	0.70	13.49	3638	45	500D	0.0	40.0
		212	1.15	13.49	3275	30			
		229	4.40	11.68	145	0			
520224	100524	146	1.49	13.15	3174	45	625D	6.0	34.0
		229	1.88	12.96	2869	30			
		176	2.71	12.84	235	0			
520234	100477	176	1.79	13.10	1548	45	550D	8.0	32.0
		156	0.16	12.87	1026	31			
		132	0.08	13.12	279	0			
520332	100637	160	1.76	13.43	2567	50	600D	8.0	31.0
		258	1.76	13.55	2653	35			
		263	2.48	13.49	210	0			
520109	100416	160	2.30	13.13	2208	50	700N	10.0	32.0
		174	1.74	13.43	1567	35			
		68	0.64	13.67	107	0			
520147	100490	178	0.76	13.68	3154	50	550D	9.0	29.0
		276	1.43	13.44	2184	35			
		330	5.67	10.63	108	0			
520212	100519	148	1.46	13.52	2069	50	550D	8.0	31.0
		193	1.56	13.50	1892	36			
		150	1.51	13.69	255	0			
520336	100633	169	2.42	12.96	2268	49	780N	10.0	28.0
		221	2.15	13.11	2036	35			
		262	3.60	12.17	103	0			
520354	100676	56	2.09	12.25	592	50	760D	8.0	31.0
		70	1.27	11.87	328	35			
		102	2.01	10.97	113	0			
520220	100562	174	2.18	12.93	2390	50	570D	8.0	32.0
		214	2.28	13.07	1777	36			
		140	2.45	13.40	213	0			
520268	100543	114	0.70	13.88	2198	50	640D	8.0	31.0
		173	1.47	13.53	1797	36			
		122	2.46	13.27	216	0			
520269	100497	118	1.65	13.11	1443	50	700D	8.0	30.0
		167	2.13	13.12	1136	35			
		116	1.83	13.50	291	0			
520291	100573	154	0.77	13.48	3230	50	600D	8.0	32.0
		176	0.90	13.49	2489	35			
		158	2.65	13.07	206	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520326	100620	118	0.42	14.01	1452	50	700N	4.0	34.0
		125	0.91	14.01	410	35			
		266	3.69	11.88	76	0			
520356	100679	105	2.23	13.12	1090	50	990N	19.0	34.0
		116	1.95	13.27	570	35			
		213	6.14	10.28	96	0			
520368	100709	174	1.34	13.85	2521	50	560D	8.0	30.0
		202	2.93	13.09	657	36			
		385	0.61	13.57	88	0			
520209	100486	152	1.35	12.45	2255	50	525D	8.0	31.0
		130	0.37	11.38	1637	35			
		163	1.49	10.89	181	0			
520225	100283	149	2.27	11.46	1766	50	650D	8.0	30.0
		136	1.37	11.34	1554	36			
		139	0.40	11.32	410	0			
520037	100005	283	6.91	9.63	739	44	600D	2.0	31.0
		123	0.31	13.58	1496	30			
		333	2.90	12.43	213	0			
520293	100561	263	4.34	11.88	1339	46	970N	0.0	33.0
		489	2.23	13.23	1807	30			
		789	7.25	9.47	84	0			
520338	100644	191	3.88	12.24	1019	45	640D	1.5	32.0
		205	3.29	12.72	729	31			
		276	3.13	12.80	192	0			
520339	100645	144	0.69	13.85	2775	45	800D	2.0	32.0
		158	0.30	14.10	1850	31			
		233	0.93	14.13	691	0			
520373	100802	413	10.20	8.52	143	46	600N	2.0	30.0
		424	5.70	11.07	405	31			
		430	8.26	9.38	61	0			
520031	100187	73	0.60	10.73	1973	45	650D	0.0	38.0
		79	0.20	10.89	1324	30			
		60	0.12	10.80	344	0			
520063	100576	139	2.30	13.31	2187	45	650N	0.0	28.9
		205	1.50	13.72	2129	30			
		280	8.69	9.26	89	0			
520069	100022	117	1.43	13.40	1853	45	750N	-2.0	39.0
		116	0.99	13.77	922	30			
		122	2.86	12.65	114	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520073	100018	109	1.50	13.35	1866	49	520N	-1.0	40.0
		64	0.20	13.50	1227	35			
		292	8.86	8.88	67	0			
520075	100518	193	3.38	12.63	1343	46	800N	6.0	35.0
		224	1.01	14.02	1791	31			
		218	6.33	10.61	105	0			
520087	100078	136	2.07	13.28	1833	45	480D	2.0	37.0
		148	0.26	14.01	1888	30			
		372	5.21	11.23	105	0			
520090	100525	96	0.21	14.14	2627	45	700N	6.9	27.0
		147	0.15	14.07	1698	30			
		166	5.77	11.05	104	0			
520105	100210	151	0.60	11.00	2398	45	550D	0.0	30.0
		273	0.89	10.84	1702	30			
		204	2.99	9.82	110	0			
520154	100108	55	0.30	14.10	2371	50	575D	-1.0	37.0
		101	0.12	13.90	1937	35			
		199	6.03	10.63	105	0			
520164	100569	134	0.50	13.84	2686	45	800N	1.0	30.0
		119	0.26	13.03	1045	30			
		1911	3.34	9.04	91	0			
520165	100482	102	0.63	13.73	2507	46	600D	6.0	24.0
		134	0.15	13.79	2246	30			
		230	5.42	11.05	123	0			
520201	100303	156	2.68	13.06	1685	45	850N	10.0	29.0
		196	1.45	13.75	1613	30			
		128	3.78	12.44	128	0			
520231	100607	171	3.41	12.54	1392	45	600N	6.0	29.0
		231	1.05	13.97	1828	30			
		309	8.44	8.64	72	0			
520247	100464	84	0.21	13.92	3833	45	600D	6.0	30.0
		121	0.11	13.79	3186	30			
		201	2.15	13.41	204	0			
520274	100537	124	1.86	13.55	1872	45	550N	6.0	30.0
		273	1.63	13.69	1155	31			
		267	9.19	9.07	113	0			
520292	100604	220	5.06	11.53	893	45	750D	10.0	28.0
		171	0.12	14.05	2710	31			
		319	4.79	11.82	162	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520322	100625	99	2.29	13.16	1556	44	630D	0.0	32.0
		109	0.53	14.09	1424	29			
		177	3.70	12.44	136	0			
520324	100619	145	1.24	13.71	2054	43	650D	0.0	36.0
		151	2.19	13.25	906	32			
		254	3.51	11.87	124	0			
520327	100618	68	0.11	13.53	2004	44	600D	1.0	36.0
		73	0.12	13.66	1783	30			
		208	4.14	11.72	133	0			
520343	100654	66	0.22	13.58	2343	46	700D	6.0	30.0
		72	0.13	13.28	1348	31			
		187	4.15	11.94	148	0			
520027	100208	219	1.36	10.52	2392	45	1200D	19.0	33.0
		232	0.69	10.81	1857	30			
		287	2.93	9.70	142	0			
520035	100229	248	2.26	13.19	1833	49	575D	8.0	30.0
		340	2.15	13.22	1671	36			
		394	3.84	11.96	162	0			
520036	100116	257	2.19	13.04	2415	46	650D	6.0	28.0
		361	1.60	13.23	2107	31			
		331	6.44	10.31	100	0			
520078	100043	249	2.60	12.42	1934	46	480D	6.0	30.0
		453	2.51	12.47	1616	30			
		612	6.93	9.46	92	0			
520081	100033	182	1.31	13.28	2068	44	550D	5.0	31.0
		187	0.69	13.72	1355	30			
		511	8.05	9.40	87	0			
520134	100102	253	2.67	12.68	2137	45	500D	8.0	30.0
		353	1.29	13.42	2089	30			
		544	9.01	8.83	89	0			
520149	100179	250	1.42	10.19	2167	45	480D	8.0	29.0
		422	0.99	10.46	1899	30			
		678	7.69	6.29	68	0			
520197	100454	186	1.36	13.29	2609	45	660D	8.0	30.0
		279	1.09	13.46	2414	30			
		437	5.46	10.75	163	0			
520199	100230	279	2.31	8.97	1807	44	850N	8.0	30.0
		304	0.88	9.79	2390	30			
		212	0.90	9.61	133	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520219	100480	267	2.33	13.01	1118	45	600D	10.0	28.0
		293	0.73	13.82	1545	30			
		481	7.14	9.99	124	0			
520242	100559	156	0.81	13.64	2405	46	650D	6.0	29.0
		262	1.14	13.61	1707	30			
		321	4.30	11.84	143	0			
520284	100702	251	2.96	12.71	2190	46	500D	6.0	25.0
		314	1.61	13.71	1710	30			
		966	10.22	7.84	48	0			
520294	100578	178	1.81	13.34	2026	45	550D	6.0	30.0
		276	1.16	13.56	1921	31			
		373	6.62	10.24	108	0			
520295	100568	185	1.92	13.36	1933	45	680D	9.0	28.0
		210	0.32	13.80	2236	30			
		338	5.75	10.84	142	0			
520344	100653	218	1.68	13.41	2014	46	600D	10.0	28.0
		280	0.73	13.79	2247	30			
		440	5.90	10.69	129	0			
520346	100657	134	3.30	10.92	1316	50	600N	8.0	33.0
		175	2.63	10.27	1226	35			
		119	1.56	9.99	55	0			
520350	100669	182	2.34	12.98	2005	46	1100N	8.0	30.0
		204	1.21	13.51	1659	31			
		180	1.90	13.08	108	0			
520007	100235	129	0.12	12.89	3632	49	600D	8.0	30.0
		191	0.09	12.95	2845	35			
		289	4.40	10.39	136	0			
520012	100125	211	1.99	13.07	2401	50	625D	3.0	29.0
		259	1.35	13.42	2400	35			
		263	2.79	12.55	258	0			
520013	100064	165	1.22	13.51	2329	50	560D	6.0	31.0
		250	1.46	13.31	2119	35			
		261	4.25	11.05	143	0			
520033	100498	244	1.92	13.06	2116	50	530D	6.0	28.0
		343	1.71	13.20	2188	35			
		383	6.64	10.06	113	0			
520056	100281	215	1.00	13.80	2830	49	525D	5.0	35.0
		315	1.15	13.69	2639	35			
		453	9.00	8.90	81	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520030	100126	162	0.77	13.29	3042	49	525D	8.0	31.0
		298	1.88	12.94	2011	35			
		399	5.18	10.64	132	0			
520034	100266	159	1.30	13.63	2229	50	625D	12.0	30.0
		252	2.67	12.96	1190	35			
		467	6.00	10.06	99	0			
520060	100512	103	0.63	13.40	2584	51	600D	4.0	27.0
		194	0.74	13.58	2775	35			
		153	0.13	13.74	235	0			
520065	100071	165	0.54	13.56	3540	48	650D	12.0	30.0
		254	2.08	12.88	2213	34			
		326	1.98	12.98	217	0			
520077	100055	180	1.95	13.20	1733	50	550D	8.0	32.0
		326	3.16	12.36	1446	35			
		252	2.52	12.60	194	0			
520099	100117	244	1.11	13.51	3149	46	550D	13.0	27.0
		385	0.53	13.64	3096	31			
		551	9.33	8.58	96	0			
520102	100058	204	1.58	13.24	2186	50	420D	8.0	32.0
		302	1.78	13.24	1820	35			
		434	5.86	10.55	105	0			
520108	100137	173	0.69	13.50	2386	49	620D	0.0	31.0
		276	0.84	13.48	2204	35			
		261	4.67	11.13	118	0			
520111	100062	224	2.89	12.62	1488	50	650D	4.0	33.0
		376	5.15	10.96	660	35			
		240	1.57	13.50	272	0			
520122	100060	228	2.21	13.10	2176	49	600D	8.0	31.0
		303	2.09	13.13	1932	35			
		302	4.03	12.08	186	0			
520123	100059	257	2.65	12.52	1663	50	550D	10.0	30.0
		328	2.27	12.79	1577	36			
		635	6.46	9.63	106	0			
520148	100153	197	0.81	11.25	2266	49	520D	10.0	40.0
		299	1.39	10.44	1590	35			
		414	4.79	9.02	119	0			
520179	100219	192	1.17	10.43	2612	50	625D	6.0	30.0
		347	2.96	9.51	1168	35			
		332	3.74	8.94	147	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520072	100103	187	1.14	13.82	2927	50	520D	8.0	30.0
		290	1.51	13.55	2388	34			
		315	3.88	12.02	138	0			
520089	100237	219	1.01	13.70	3557	50	525D	10.0	32.0
		272	0.49	13.78	3752	35			
		409	6.14	10.47	168	0			
520131	100555	201	2.05	13.07	2347	50	540D	8.0	30.0
		284	2.17	12.89	1975	36			
		395	5.44	10.57	111	0			
520145	100111	167	0.28	13.66	3508	49	500D	7.0	29.0
		235	0.34	13.77	2723	35			
		378	4.02	11.67	112	0			
520172	100335	176	1.02	13.95	2990	50	550D	8.0	30.0
		253	1.38	13.80	2175	36			
		288	3.91	11.07	136	0			
520192	100249	284	2.30	12.94	1462	45	800N	20.0	28.0
		436	5.75	10.48	184	30			
		688	6.09	9.96	81	0			
520200	100444	148	0.25	13.78	2941	49	600N	10.0	29.0
		189	0.53	13.61	1612	35			
		221	3.43	11.91	87	0			
520208	100290	248	3.36	12.35	1421	49	500D	8.0	30.0
		407	4.41	11.62	968	35			
		698	10.62	7.14	55	0			
520217	100411	163	1.43	13.30	2351	50	625D	10.0	31.0
		250	3.04	12.48	994	35			
		274	6.92	9.77	105	0			
520261	100593	181	1.49	13.51	2201	50	800N	8.0	29.0
		247	1.06	13.67	1756	36			
		206	2.22	13.10	130	0			
520349	100704	102	0.78	13.90	3002	50	700N	4.0	29.0
		110	0.11	13.80	2455	36			
		160	5.01	11.65	103	0			
520006	100010	242	3.18	12.34	1674	48	420D	6.0	27.0
		290	1.21	12.72	1915	30			
		580	8.72	9.06	73	0			
520029	100177	222	2.34	9.63	1852	50	650D	8.0	31.0
		282	1.88	9.88	1803	35			
		249	2.01	9.88	191	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520202	100488	249	1.95	13.09	2118	50	550D	6.0	29.0
		347	1.68	13.15	2012	35			
		413	6.06	10.37	113	0			
520205	100484	127	2.41	12.12	1181	51	600D	4.0	29.0
		148	1.87	11.71	773	35			
		172	0.11	11.82	217	0			
520244	100515	172	1.94	13.38	1899	50	600D	6.0	27.0
		288	3.53	12.34	912	36			
		285	7.19	9.89	112	0			
520290	100553	145	1.16	13.71	2503	50	580D	8.0	43.0
		283	2.74	13.09	1461	35			
		410	6.83	10.39	91	0			
520296	100571	228	1.82	13.40	2153	50	670D	6.0	28.0
		353	3.78	12.25	960	35			
		447	7.38	9.88	89	0			
520352	100674	213	3.19	12.63	1701	50	800N	6.0	30.0
		217	1.00	13.25	2378	35			
		168	4.42	12.03	112	0			
520093	100086	178	3.31	12.31	1334	49	720D	15.0	28.0
		194	1.59	13.19	1818	35			
		174	1.64	12.53	301	0			
520094	100066	194	3.28	12.33	1330	50	600D	8.0	29.0
		227	1.69	13.37	1605	35			
		330	5.86	10.56	121	0			
520115	100554	155	2.36	12.50	1979	50	750D	6.0	30.0
		173	1.12	13.13	2049	35			
		206	2.54	12.18	360	0			
520187	100333	231	3.47	12.30	1505	51	550D	8.0	28.0
		340	2.31	13.08	1756	35			
		439	7.34	9.54	79	0			
520257	100592	143	2.61	12.66	1696	50	620D	6.0	29.0
		154	0.66	13.37	1840	35			
		202	2.64	12.33	157	0			
520271	100443	108	2.17	12.81	1778	50	680D	6.0	29.0
		145	0.59	13.58	2344	35			
		228	4.18	11.77	130	0			
520288	100552	149	2.79	12.83	1602	51	750D	10.0	25.0
		202	1.54	13.78	946	36			
		297	5.81	10.78	119	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520306	100598	141	2.64	12.77	1611	51	600D	6.0	29.0
		169	0.92	13.59	2072	35			
		151	0.30	12.85	204	0			
520316	100611	211	2.60	12.88	1355	51	650D	6.0	30.0
		250	2.43	12.95	1400	35			
		232	2.91	12.32	226	0			
520340	100650	170	1.32	13.64	2133	50	950N	6.0	25.0
		228	0.91	13.73	1734	35			
		132	2.37	13.07	119	0			
520351	100675	96	0.18	13.73	2845	50	650N	6.0	30.0
		145	0.10	13.62	2396	36			
		170	2.11	13.35	126	0			
520357	100701	173	3.02	12.45	1137	51	700N	15.0	28.0
		94	0.37	12.59	607	35			
		386	3.52	8.64	55	0			
520039	100420	255	9.53	8.68	160	50	600D	10.0	30.0
		262	1.82	13.40	1522	35			
		230	2.40	13.19	199	0			
520041	100278	266	7.04	10.06	332	50	500D	0.0	39.0
		263	1.30	13.56	1716	35			
		410	5.97	10.66	120	0			
520097	100154	234	3.32	10.47	1355	50	600D	10.0	28.0
		330	2.79	10.73	1504	35			
		330	1.45	11.61	290	0			
520144	100581	156	0.47	13.82	3761	50	600D	9.0	30.0
		265	1.83	13.47	2419	36			
		295	4.56	11.63	192	0			
520152	100089	215	2.95	12.58	2181	50	875N	14.0	26.0
		343	3.81	11.93	1424	35			
		273	6.86	10.08	118	0			
520156	100513	103	0.29	13.06	2802	50	800D	10.0	30.0
		164	0.68	13.18	2532	36			
		143	0.54	12.67	528	0			
520170	100241	303	5.68	10.54	575	50	650D	10.0	30.0
		256	2.24	12.86	990	34			
		613	10.79	7.00	42	0			
520180	100282	89	0.90	13.72	1832	51	620D	6.0	32.0
		116	1.01	13.61	1116	35			
		272	3.02	12.55	203	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520230	100575	241	8.49	9.08	208	51	500D	9.0	33.0
		298	0.38	13.79	2251	35			
		679	10.80	7.36	67	0			
520286	100565	226	0.75	13.68	2460	50	600D	4.0	34.0
		314	1.24	13.36	1982	35			
		275	1.29	13.62	500	0			
520155	100567	168	0.63	13.54	2836	51	600D	6.0	29.0
		248	0.92	13.52	2631	35			
		317	5.26	11.09	148	0			
520163	100541	156	0.19	13.38	4152	51	700D	6.0	28.0
		240	0.89	13.66	3180	36			
		200	0.10	13.63	805	0			
520213	100301	170	2.01	13.07	1931	50	650D	6.0	29.0
		211	0.94	13.47	2352	35			
		221	2.34	13.00	185	0			
520236	100560	147	0.26	13.22	3428	50	680D	7.9	33.0
		214	0.68	13.43	3002	36			
		229	2.22	13.04	359	0			
520277	100517	131	0.90	13.50	2805	50	650D	10.0	29.0
		168	0.59	13.50	2873	35			
		189	2.89	12.90	258	0			
520282	100520	161	0.49	13.50	3400	51	700D	8.0	30.0
		245	1.11	13.24	2594	36			
		224	1.78	13.23	313	0			
520055	100011	68	0.15	13.40	1981	49	880N	1.0	35.0
		121	0.13	12.43	814	30			
		120	3.43	12.35	107	0			
520136	100162	160	1.89	10.61	1403	50	650D	7.0	28.0
		141	0.78	10.80	965	35			
		205	2.44	8.89	113	0			
520143	100494	128	0.40	14.02	3115	50	700D	10.0	31.0
		168	0.71	13.82	2368	36			
		148	0.50	14.06	218	0			
520153	100092	164	0.12	13.21	2255	50	900D	8.0	28.0
		189	0.11	13.07	1480	35			
		174	4.46	10.65	98	0			
520182	100539	158	3.47	12.44	1106	51	850D	9.0	27.0
		129	0.23	13.55	1976	36			
		89	0.09	12.36	364	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	RT	DWL
520228	100608	175	2.07	13.30	1648	50	690N	9.0	26.0
		227	2.09	13.27	809	35			
		2125	2.17	8.43	58	0			
520298	100582	403	6.96	9.65	395	50	600D	8.0	30.0
		370	2.77	12.35	1186	35			
		401	4.46	11.12	101	0			
520137	100120	85	0.83	13.07	2188	50	600D	12.0	31.0
		74	0.12	13.24	1427	36			
		192	2.85	11.82	152	0			
520138	100558	134	2.39	13.12	2625	51	550D	8.0	30.0
		168	1.22	13.52	2783	36			
		272	4.13	11.50	136	0			
520158	100160	169	2.27	12.59	1742	49	650D	20.0	30.0
		234	1.86	12.85	1607	35			
		591	5.39	9.73	116	0			
520169	100175	220	1.89	10.80	1947	49	800D	10.0	30.0
		197	0.43	11.11	2125	34			
		180	0.10	9.82	222	0			
520064	100014	329	10.19	7.65	87	49	600D	6.0	32.0
		224	2.06	13.01	1045	34			
		214	3.05	12.38	130	0			
520133	100127	364	6.90	9.61	345	49	675D	13.0	28.0
		308	2.70	12.34	1340	35			
		290	2.70	12.39	182	0			
520196	100677	194	3.27	12.55	987	51	580D	9.0	30.0
		241	2.27	13.16	978	35			
		150	0.81	13.90	170	0			
520275	100502	264	4.12	11.52	895	50	600D	10.0	30.0
		330	3.11	12.24	1128	35			
		380	7.75	9.21	87	0			
520333	100664	172	1.96	13.13	1659	50	625D	8.0	30.0
		197	1.74	13.23	1213	35			
		195	3.67	12.22	119	0			
520341	100663	353	9.41	8.45	167	50	580D	10.0	30.0
		271	1.69	13.21	1447	36			
		216	1.89	13.30	163	0			
520347	100667	112	1.61	13.57	1168	50	560D	2.0	30.0
		120	1.31	13.64	693	36			
		215	3.70	12.36	107	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520348	100665	147	1.61	13.30	1631	50	600D	12.0	30.0
		181	2.20	13.08	906	36			
		224	5.44	11.06	113	0			
520370	100775	229	2.91	12.75	1299	49	625D	6.0	31.0
		333	3.51	12.28	827	35			
		233	2.44	13.01	90	0			
520054	100016	179	5.11	11.04	515	50	560D	8.0	29.0
		161	1.84	13.27	1108	35			
		225	2.73	12.43	101	0			
520092	100106	101	1.87	13.31	1582	50	575D	8.0	30.0
		159	1.92	13.22	1785	35			
		184	3.58	11.72	103	0			
520130	100096	101	3.20	12.48	786	50	600D	4.0	31.0
		147	2.48	12.87	1008	35			
		146	3.17	12.12	103	0			
520237	100318	101	1.74	13.48	1852	50	725D	12.0	28.0
		129	2.88	12.87	977	36			
		157	3.69	11.38	157	0			
520342	100651	89	0.64	13.94	2500	50	600D	6.0	30.0
		128	0.82	13.93	1933	35			
		140	1.05	13.97	150	0			
520369	100706	90	0.43	14.32	1688	50	550D	8.0	30.0
		176	1.22	13.94	1445	35			
		233	2.08	13.24	90	0			
520371	100773	103	0.26	14.26	2461	49	600D	10.0	30.0
		192	1.91	13.61	1511	34			
		238	3.49	12.34	73	0			
520096	100302	167	3.36	12.43	1118	50	620D	7.0	30.0
		258	2.91	12.71	1226	36			
		286	4.90	11.37	109	0			
520246	100421	152	3.05	12.67	944	51	700D	10.0	30.0
		208	2.48	13.04	946	36			
		132	2.96	12.85	120	0			
520038	100020	128	2.92	12.49	1331	49	520D	8.0	33.0
		163	1.99	13.05	1276	35			
		184	4.67	10.80	94	0			
520059	100199	221	1.07	10.92	2147	50	600D	8.0	30.0
		240	2.41	10.09	1176	35			
		225	3.41	9.14	110	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520103	100178	139	1.57	10.10	2404	50	600D	11.0	30.
		220	2.69	9.52	1356	35			
		240	4.85	7.74	95	0			
520135	100583	100	1.72	13.45	2027	50	550D	8.0	28.0
		165	2.67	12.97	1261	35			
		142	2.73	12.26	119	0			
520025	100163	144	2.26	11.58	1526	49	600D	8.0	25.0
		182	1.21	12.16	1714	34			
		203	1.88	11.64	139	0			
520028	100019	100	1.32	13.56	2340	49	500D	8.0	31.0
		120	1.35	13.55	1315	35			
		434	10.02	8.32	66	0			
520106	100265	219	8.56	8.99	225	49	625D	6.0	27.0
		185	1.96	13.29	1407	35			
		197	2.04	13.17	174	0			
520142	100085	171	8.77	9.07	179	50	640D	1.0	31.0
		142	1.31	13.80	1251	35			
		141	1.00	14.12	232	0			
520280	100548	97	0.46	14.13	3089	50	670D	8.0	27.0
		165	0.68	14.16	2614	36			
		314	7.26	10.10	100	0			
520023	100145	217	10.78	7.33	124	50	520D	2.0	30.0
		237	4.66	10.93	579	35			
		283	8.20	8.92	86	0			
520024	100110	223	8.03	9.53	306	50	470D	8.0	31.0
		219	2.47	13.15	1626	35			
		468	10.12	8.42	61	0			
520159	100523	129	1.77	13.32	1916	50	600D	4.0	28.0
		199	3.53	12.25	867	35			
		201	3.43	12.34	170	0			
520279	100529	194	4.21	11.76	829	50	500D	9.0	28.0
		217	1.86	13.07	1532	36			
		251	3.00	12.51	111	0			
520334	100631	149	2.67	12.98	1655	49	520D	8.0	30.0
		223	3.40	12.46	1082	34			
		404	8.61	9.04	77	0			
520358	100695	130	2.69	12.96	1164	51	600D	8.0	28.0
		194	2.72	12.94	871	36			
		314	6.15	10.64	91	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520359	100698	134	1.99	13.17	1359	50	600D	6.0	30.0
		236	2.60	12.83	913	35			
		298	3.59	12.25	119	0			
520364	100705	194	2.05	13.26	1756	51	550D	8.0	28.0
		288	3.22	12.51	1047	35			
		373	4.90	11.45	108	0			
520026	100542	130	0.28	14.06	3261	50	630D	8.0	28.0
		171	0.52	14.07	2288	36			
		198	4.40	11.72	123	0			
520052	100012	173	2.37	12.79	2089	48	580D	6.0	32.0
		231	2.27	12.90	1170	30			
		304	4.44	11.35	121	0			
520184	100248	181	1.19	13.72	3349	49	650D	6.0	27.0
		248	2.18	13.17	2143	34			
		294	4.16	11.75	141	0			
520194	100473	140	2.17	13.26	2396	50	550D	10.0	28.0
		168	3.08	12.65	1080	35			
		208	4.98	11.00	121	0			
520195	100531	126	1.56	14.00	2733	50	700D	10.0	28.0
		162	1.63	13.99	1908	35			
		196	3.27	12.64	136	0			
520278	100522	180	3.66	12.06	1712	50	650D	4.0	28.0
		227	3.40	12.21	1306	35			
		226	4.17	11.51	142	0			
520281	100516	91	2.08	13.46	1813	50	600D	8.0	27.0
		92	1.57	13.80	1134	36			
		153	2.02	12.77	122	0			
520283	100556	147	1.99	13.17	2556	50	750D	0.0	24.0
		213	2.77	12.72	1437	35			
		210	2.89	12.49	185	0			
520287	100550	146	1.52	13.71	2581	50	625D	-1.0	28.0
		200	1.75	13.58	1671	35			
		153	0.89	13.78	189	0			
520297	100574	169	1.39	13.48	3138	50	650D	6.0	28.0
		211	1.83	13.29	1962	35			
		159	1.92	13.27	161	0			
520008	100001	134	0.39	13.39	3443	49	650D	.	.
		262	2.85	12.22	1689	34			
		307	5.56	10.50	133	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520009	100002	151	0.48	13.58	3307	50	650D	10.0	28.0
		239	1.99	12.77	2010	35			
		169	1.27	13.25	219	0			
520116	100046	118	0.42	14.13	2371	50	550D	6.0	31.0
		225	2.42	13.10	1678	35			
		178	3.54	12.19	168	0			
520117	100052	137	0.90	14.01	2385	50	620D	7.0	28.0
		191	2.34	13.13	1523	36			
		192	5.15	11.20	137	0			
520119	100054	157	0.66	13.98	2929	50	620D	8.0	32.0
		236	2.75	12.77	1405	35			
		249	6.01	10.58	140	0			
520120	100051	146	2.25	13.23	1634	50	680D	8.0	31.0
		193	2.53	13.01	1345	35			
		205	4.44	11.68	142	0			
520121	100053	176	2.75	12.80	1599	49	550D	8.0	28.0
		220	2.46	12.99	1495	35			
		255	5.49	10.80	123	0			
520239	100316	143	1.56	13.60	2934	50	580D	12.0	30.0
		209	3.42	12.49	1546	35			
		252	6.88	9.93	94	0			
520050	100013	132	0.55	13.58	3574	37	700N	2.0	36.0
		128	0.11	13.40	1710	23			
		135	1.10	13.34	81	0			
520080	100197	192	2.45	9.79	1905	38	600D	5.0	53.0
		204	0.14	10.76	2909	23			
		289	3.67	9.09	113	0			
520215	100483	134	3.19	12.63	1823	36	630D	0.0	45.0
		108	0.11	13.75	2692	23			
		136	1.69	13.73	138	0			
520011	100007	146	1.65	12.71	2519	38	850N	.	42.0
		269	1.62	12.76	2198	23			
		303	7.15	9.17	91	0			
520040	100169	160	2.20	12.39	2956	37	1000N	2.0	45.0
		382	2.25	11.96	2704	23			
		239	5.64	10.50	107	0			
520042	100189	174	1.66	10.10	2016	37	1000N	0.0	53.0
		383	1.09	10.46	2014	22			
		212	4.22	8.41	111	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520043	100170	229	4.90	8.18	625	36	800D	0.0	45.0
		289	1.06	10.50	2290	22			
		271	3.89	8.88	169	0			
520045	100024	219	6.51	10.07	629	36	100N	TD.C	37.0
		189	0.94	13.67	2737	23			
		154	6.69	9.77	113	0			
520046	100426	185	2.58	11.86	2214	38	1100N	0.0	54.0
		374	2.16	13.13	2119	23			
		567	8.75	8.72	84	0			
520047	100063	187	1.45	12.70	3176	38	900N	4.0	55.0
		296	1.62	13.01	2498	23			
		265	7.09	9.46	86	0			
520048	100147	149	1.16	12.52	3576	37	900N	2.0	46.0
		318	1.45	12.99	2541	23			
		180	4.42	11.23	118	0			
520049	100205	146	3.02	9.29	1462	42	1200N	0.0	35.0
		153	0.23	10.53	3907	30			
		92	3.36	9.19	116	0			
520053	100023	121	2.21	12.78	2245	37	1000N	2.5	39.0
		172	0.84	12.88	2580	23			
		137	6.12	10.22	100	0			
520062	100132	183	1.13	12.55	2975	37	900N	2.0	45.0
		447	1.91	11.85	2279	23			
		343	5.63	9.83	94	0			
520079	100028	146	4.69	11.20	1543	45	1200N	2.0	56.0
		141	0.40	13.46	4074	30			
		107	4.52	11.46	114	0			
520084	100279	122	1.34	12.73	3645	37	1200D	0.0	54.0
		193	0.58	13.85	3523	23			
		149	5.50	10.96	78	0			
520088	100039	146	5.77	10.71	863	45	760N	-1.0	56.0
		139	0.27	13.76	3880	30			
		136	3.24	12.47	108	0			
520191	100259	206	4.28	12.05	1755	37	850D	0.0	52.0
		309	2.09	13.57	1879	22			
		238	5.88	10.96	123	0			
520319	100617	164	6.21	10.47	688	38	800D	0.0	49.0
		325	1.35	13.69	1934	23			
		304	9.09	8.98	87	0			

DENVER CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
520330	100627	127	2.70	12.73	2602	39	8500	0.0	36.0
		193	1.78	13.41	2262	22			
		234	6.42	10.47	124	0			

TABLE E-6

Washington D.C.

WASHINGTON D.C. 1970 VEHICLES KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	IRPM	BT	DWL
620033	000074	46	0.13	12.80	2782	46	510D	3.0	32.0
		83	0.11	13.10	3010	32			
		141	2.60	12.91	156	0			
620034	000210	77	0.19	12.65	3101	46	560D	0.0	37.0
		102	0.26	13.00	1457	32			
		140	3.68	11.06	98	0			
620215	000066	48	0.13	12.80	2976	47	600D	4.0	30.0
		101	0.11	12.54	2701	31			
		110	0.09	12.19	137	0			
620233	000100	81	0.18	13.03	3170	46	650N	3.0	36.0
		138	0.18	13.61	2417	32			
		67	0.15	13.39	89	0			
620240	000132	93	0.33	13.48	3175	46	500D	5.0	32.0
		123	0.18	13.36	2900	33			
		319	8.71	8.89	83	0			
620244	000137	77	0.14	13.53	2414	46	580N	2.0	32.0
		116	0.15	14.02	1326	32			
		173	6.16	10.28	62	0			
620249	000056	104	0.19	13.46	3471	46	700N	2.0	34.0
		160	0.22	13.69	2322	32			
		135	2.68	12.92	95	0			
620261	000193	75	0.14	11.26	2489	46	520D	10.0	38.0
		117	0.13	12.78	3353	32			
		205	6.15	10.07	118	0			
620264	000134	69	0.15	12.73	3057	46	560D	6.0	33.0
		128	0.13	12.92	3785	32			
		343	2.40	12.85	165	0			
620288	000257	623	11.03	6.71	40	0	380D	0.0	35.0
		264	4.80	11.41	726	32			
		129	0.84	12.69	3430	46			
620291	000099	69	0.17	12.59	3051	46	795N	7.0	34.0
		112	0.17	12.91	2262	32			
		65	0.20	13.43	139	0			
620292	000155	108	0.34	13.80	2543	46	470D	3.0	33.0
		156	0.19	13.70	2765	32			
		186	3.59	11.96	143	0			
620368	000188	32	0.20	13.42	1411	46	576D	-1.0	37.0
		25	0.15	13.05	619	33			
		95	2.57	12.95	144	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620035	000204	125	1.19	12.13	1257	46	500D	3.0	37.0
		65	0.23	11.39	802	32			
		85	0.15	12.07	204	0			
620229	000174	67	0.20	13.48	106	0	475D	-2.0	35.0
		162	0.18	13.62	1902	32			
		97	0.17	12.89	3045	46			
620350	000136	82	0.19	13.55	2325	46	500N	-4.0	27.0
		131	0.18	13.78	1554	32			
		72	0.66	13.73	111	0			
620366	000172	63	0.19	12.25	1800	46	450D	2.0	38.0
		113	0.18	12.90	1481	32			
		137	0.16	13.57	166	0			
620023	000003	56	0.17	13.29	1716	50	625D	5.0	30.0
		72	0.20	13.66	1250	35			
		96	1.39	13.50	168	0			
620204	000059	138	0.43	13.66	2188	46	675D	0.0	29.0
		120	0.26	13.51	1199	32			
		159	1.85	11.70	137	0			
620220	000263	157	0.21	13.27	3078	51	530D	6.0	29.0
		166	0.23	13.37	1649	35			
		163	1.11	13.24	152	0			
620223	000127	57	0.19	13.01	1768	50	460D	2.5	32.0
		58	0.20	13.03	859	35			
		231	2.94	12.63	104	0			
620349	000274	93	0.22	13.44	1520	46	550D	0.0	31.0
		79	0.24	13.34	606	32			
		107	0.23	13.23	155	0			
620370	000206	88	0.20	12.12	1972	50	560D	5.0	28.0
		104	0.30	12.03	1149	35			
		87	0.21	12.50	238	0			
620362	000194	168	0.38	12.83	3433	50	500D	3.0	38.0
		141	0.19	12.42	2005	35			
		68	0.15	12.12	123	0			
620371	000184	118	0.22	12.69	4151	50	544D	0.0	28.0
		111	0.18	12.31	2859	35			
		67	0.55	12.92	108	0			
620036	000197	251	0.40	12.69	3079	46	550D	0.0	28.0
		311	1.18	12.60	1708	32			
		239	6.02	9.87	104	0			

WASHINGTON D.C.

CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620192	000199	127	0.13	11.36	159	0	550D	5.0	28.0
		215	0.18	11.91	1688	32			
		251	0.70	12.71	3097	46			
620373	000280	134	0.54	14.20	4402	50	530D	2.0	27.0
		131	0.27	13.77	3795	35			
		77	0.13	13.23	267	0			
620376	000237	166	0.54	12.72	3246	50	530D	0.0	32.0
		153	0.25	12.73	2299	36			
		107	1.43	11.33	193	0			
620417	000202	146	1.29	12.01	129	0	700N	6.0	26.0
		246	0.57	12.17	2039	35			
		209	0.65	12.46	3572	50			
620043	000262	86	0.14	12.67	3779	46	550D	0.0	39.0
		98	0.14	12.43	2210	32			
		233	6.98	9.63	129	0			
620250	000035	102	0.59	13.74	4141	46	590N	3.5	34.0
		136	0.57	13.53	3233	32			
		66	0.18	13.15	163	0			
620286	000201	261	4.77	10.23	157	0	1200N	1.0	41.0
		200	0.84	12.98	3032	32			
		111	0.42	12.36	2687	46			
620431	000333	90	0.19	12.62	101	0	760D	2.5	35.0
		226	1.99	12.53	1633	32			
		137	0.90	12.90	3366	46			
620022	000010	101	0.68	13.15	3933	46	820N	5.0	24.0
		113	0.39	12.99	3253	32			
		250	4.19	10.64	149	0			
620026	000005	67	0.26	13.09	3439	46	950N	2.5	41.0
		76	0.16	13.05	2718	32			
		136	1.90	12.99	264	0			
620029	000009	89	0.30	12.66	3736	46	850N	9.0	42.0
		121	0.44	12.77	3432	32			
		206	2.03	12.02	242	0			
620039	000104	196	4.59	11.78	1140	45	700D	0.0	44.0
		256	3.73	12.20	986	33			
		365	0.49	13.19	354	0			
620040	000098	97	0.58	13.72	4919	46	511N	2.0	33.0
		96	0.19	13.62	4576	32			
		367	7.61	9.87	143	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	HT	DWL
620044	000149	97	0.83	13.53	3433	46	1025N	10.0	38.0
		112	0.14	13.58	3215	32			
		165	0.46	13.49	149	0			
620045	000229	108	0.50	12.70	4160	46	550D	2.0	41.0
		118	0.31	12.47	3358	33			
		227	6.34	9.14	90	0			
620046	000196	130	0.46	12.68	4051	46	525D	3.0	41.0
		139	0.77	11.84	2004	32			
		272	8.72	8.52	132	0			
620047	000200	178	2.13	11.62	211	0	650D	0.0	42.0
		192	1.68	12.46	1654	32			
		124	0.70	12.74	4062	46			
620049	000216	193	2.86	11.17	148	0	575D	4.0	41.5
		129	0.29	12.35	2240	32			
		96	0.47	12.12	2837	47			
620050	000244	266	0.45	11.64	528	0	700D	2.0	36.0
		164	0.76	12.52	1979	31			
		112	0.33	12.30	3901	46			
620051	000231	336	10.47	6.61	40	0	600N	2.0	42.0
		132	0.42	12.93	2903	32			
		127	2.21	12.32	3299	47			
620053	000133	100	0.52	13.38	2768	46	700N	2.5	42.0
		106	0.20	13.43	1795	32			
		228	4.66	11.02	75	0			
620284	000079	75	0.22	12.87	3064	50	720N	-1.0	34.0
		93	0.16	12.55	1537	32			
		99	1.79	12.59	104	0			
620285	000255	126	2.41	11.60	103	0	300N	5.0	38.0
		107	0.17	11.82	2365	32			
		91	0.25	12.03	3563	46			
620287	000233	85	0.29	12.02	2558	47	635N	0.0	36.0
		112	0.20	12.12	1867	32			
		87	0.76	11.48	125	0			
620312	000228	121	0.52	12.53	3899	47	550D	0.0	38.0
		102	0.19	12.42	2307	33			
		241	8.18	8.45	93	0			
620435	000348	230	3.35	11.19	180	0	570D	3.0	34.0
		161	0.50	13.43	2931	32			
		113	0.45	12.90	3930	46			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620439	000343	272	5.21	10.87	140	0	580D	1.0	34.0
		173	0.85	13.52	2075	32			
		135	1.49	13.23	3639	46			
620441	000342	565	10.74	7.09	53	0	440D	0.0	33.0
		180	0.58	13.23	3216	32			
		119	0.42	13.04	4281	46			
620444	000341	208	4.14	11.56	103	0	600N	0.0	35.0
		184	1.53	13.28	1841	32			
		134	1.10	13.47	3274	46			
620020	000024	121	0.34	13.48	3152	45	580D	1.0	33.0
		182	0.20	13.35	3380	32			
		196	0.20	13.10	120	0			
620030	000007	139	0.30	13.58	3619	46	600N	6.0	39.0
		238	2.01	13.39	1581	32			
		183	2.59	13.21	266	0			
620037	000084	146	0.33	13.83	3064	46	780N	0.0	35.0
		155	0.23	13.78	1648	33			
		287	7.99	9.55	76	0			
620038	000082	74	0.30	13.62	1755	46	520D	-5.0	35.0
		140	0.30	13.39	2327	32			
		114	0.59	13.61	143	0			
620042	000063	74	0.29	13.64	1729	46	700D	0.0	32.0
		130	0.16	12.95	2306	32			
		176	2.69	12.66	125	0			
620054	000215	95	0.34	12.54	1644	50	670D	3.0	28.0
		128	0.16	11.90	1470	32			
		173	4.19	10.64	103	0			
620055	000214	148	0.67	12.65	2058	47	510D	0.0	32.0
		143	0.19	12.23	1883	32			
		211	5.30	10.20	94	0			
620056	000212	130	0.46	12.33	2375	50	540D	5.0	32.0
		166	0.64	12.50	1428	35			
		169	2.30	11.75	107	0			
620058	000297	159	1.24	13.46	1275	46	440D	1.0	27.0
		259	0.42	13.26	1702	32			
		319	7.61	9.40	85	0			
620059	000318	138	0.52	13.87	177	0	570D	2.0	33.0
		137	0.16	12.79	1868	31			
		125	0.36	13.24	2895	46			

WASHINGTON D.C.

CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620060	000242	74	0.20	12.11	1489	50	600D	3.0	24.0
		126	0.18	11.11	1526	36			
		136	1.79	12.05	134	0			
620061	000239	152	1.43	12.29	146	0	545D	0.0	31.0
		202	0.18	12.27	2096	31			
		81	0.21	12.00	1242	46			
620196	000213	139	0.66	12.33	2472	50	590N	1.0	31.0
		114	0.17	12.05	1647	36			
		203	5.87	9.57	98	0			
620202	000227	61	0.23	13.02	1823	50	545D	0.0	34.0
		96	0.19	12.56	2350	35			
		215	5.30	10.64	141	0			
620222	000235	180	2.22	11.92	1561	50	560D	0.0	30.0
		222	2.15	11.94	1339	36			
		135	1.04	12.29	146	0			
620259	000101	164	0.27	13.86	3480	46	850N	2.5	30.0
		179	0.19	13.38	2426	32			
		380	5.51	11.06	110	0			
620320	000315	322	6.92	9.61	95	0	500D	2.0	31.0
		181	0.13	13.13	2534	31			
		160	0.38	13.52	3169	46			
620380	000327	885	4.24	10.61	98	0	670D	5.0	25.0
		257	0.63	13.65	2092	35			
		160	1.31	13.71	1643	50			
620425	000314	214	1.37	13.35	135	0	510D	2.0	29.0
		182	0.72	14.00	1980	32			
		186	2.46	13.25	1954	46			
620426	000321	237	4.26	11.79	95	0	530D	2.0	30.0
		131	0.17	13.36	2178	32			
		106	0.25	13.46	3513	46			
620007	000023	87	0.23	12.56	3625	50	412D	2.0	.
		79	0.19	11.61	1509	35			
		776	8.09	8.42	88	0			
620019	000004	84	0.71	13.53	3045	50	575D	11.0	35.0
		89	0.70	12.78	1627	35			
		198	4.90	11.75	105	0			
620041	000089	74	0.20	11.42	1998	50	550D	10.0	30.0
		95	0.19	11.60	1236	35			
		248	4.14	12.06	106	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620063	000217	75	1.74	12.12	89	0	625N	5.0	32.5
		136	0.43	12.16	1793	35			
		164	1.96	11.89	2046	50			
620065	000256	219	6.86	10.17	78	0	500D	5.0	28.0
		106	0.47	13.25	923	32			
		87	0.59	13.70	2466	51			
620066	000189	107	1.04	12.50	2533	49	474D	0.0	35.0
		79	0.26	12.19	1708	35			
		242	7.20	9.50	80	0			
620067	000160	98	0.57	13.39	3073	51	420D	5.0	35.0
		89	0.17	13.11	2510	32			
		426	8.17	8.92	68	0			
620068	000219	97	0.40	12.41	2522	50	500D	0.0	32.0
		84	0.18	11.64	1399	36			
		178	5.42	9.43	70	0			
620195	000253	145	0.64	12.58	3409	50	475D	3.0	29.0
		105	0.20	11.91	2163	35			
		190	0.64	12.68	474	0			
620201	000240	118	0.72	12.15	2422	50	550D	2.0	30.0
		109	0.30	12.04	1387	35			
		325	6.44	9.41	78	0			
620384	000290	124	1.27	13.89	2599	50	450D	0.0	31.0
		82	0.21	13.55	2009	35			
		173	6.99	9.43	98	0			
620421	000285	291	7.76	8.93	67	0	460D	2.5	29.0
		107	0.17	12.73	1735	35			
		117	0.42	13.36	3084	50			
620071	000220	182	3.20	12.14	1847	51	550D	3.0	30.0
		199	2.48	12.56	1568	36			
		422	9.07	8.05	73	0			
620072	000248	105	2.16	11.80	964	50	470D	2.0	31.0
		135	0.80	12.09	1908	35			
		173	3.56	10.45	130	0			
620062	000106	210	1.21	13.17	3091	46	670D	4.0	31.0
		179	0.25	12.87	2231	32			
		305	6.57	9.36	73	0			
620070	000071	110	0.51	13.18	3092	50	660N	5.0	31.0
		110	0.46	12.14	1434	35			
		280	3.43	10.53	89	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620365	000163	396	6.01	10.56	84	0	750N	7.5	36.0
		234	1.55	13.59	1657	35			
		194	2.17	13.20	2303	50			
620415	000185	66	0.31	12.50	1533	50	714N	5.0	33.0
		59	0.19	11.95	798	35			
		363	2.07	9.84	61	0			
620021	000087	147	2.73	12.41	1981	50	580N	2.5	28.0
		75	0.17	12.27	2392	35			
		526	6.57	9.25	68	0			
620073	000080	134	2.43	13.38	2306	50	850N	6.0	33.0
		93	0.39	13.90	1976	35			
		156	3.66	11.54	106	0			
620211	000187	127	2.28	12.07	1472	50	700D	4.0	36.0
		135	1.84	12.60	710	35			
		159	0.32	11.76	77	0			
620300	000175	411	5.84	10.32	84	0	575D	4.0	38.0
		305	0.21	13.51	1308	25			
		329	0.26	13.59	3404	38			
620327	000057	63	0.19	12.99	3077	46	470D	0.0	37.0
		127	0.17	12.70	3359	33			
		169	1.17	13.64	206	0			
620333	000075	258	0.18	13.10	3268	46	700N	2.0	36.0
		315	0.15	12.28	1935	32			
		200	2.89	12.60	114	0			
620367	000153	272	0.32	13.13	2943	38	990N	2.0	38.0
		345	0.26	12.55	1674	25			
		190	5.39	10.87	117	0			
620434	000332	63	0.21	12.81	148	0	500D	6.0	37.0
		126	0.18	12.26	545	25			
		154	0.18	12.45	2498	38			
620437	000338	394	3.99	11.61	115	0	500N	4.0	34.0
		275	0.16	13.04	1281	25			
		238	0.17	12.28	2597	38			
620009	000014	103	0.15	12.08	3174	46	700D	10.0	35.0
		200	0.15	11.89	3561	32			
		153	1.49	12.67	196	0			
620080	000117	173	0.18	12.19	3490	39	700D	6.0	42.0
		201	0.18	13.41	1586	24			
		235	7.65	9.92	120	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620082	000156	154	0.18	12.24	2872	38	590D	10.0	40.0
		191	0.16	12.80	1552	25			
		128	3.05	12.47	146	0			
620083	000123	188	0.18	13.46	4746	38	620D	8.0	25.0
		239	0.28	13.74	2312	25			
		488	7.23	9.92	139	0			
620084	000157	172	2.75	12.91	178	0	700D	6.0	38.0
		196	0.15	12.80	1467	25			
		168	0.16	12.16	2878	37			
620085	000094	176	0.16	13.13	3753	38	750D	6.0	40.0
		186	0.16	12.99	1506	25			
		43	0.14	12.65	118	0			
620203	000095	161	0.14	13.30	3713	38	650D	8.0	38.0
		160	0.13	12.81	1441	25			
		133	2.08	13.22	120	0			
620442	000345	253	0.12	12.64	1395	0	675D	3.0	34.0
		205	0.15	12.88	3273	25			
		141	0.15	12.70	4986	38			
620016	000015	200	0.69	12.44	3321	47	665D	0.0	27.0
		210	0.52	12.69	1784	32			
		185	1.72	12.53	200	0			
620018	000019	272	0.50	12.76	3463	46	510D	8.0	31.0
		257	0.28	12.76	2071	32			
		331	5.68	10.44	95	0			
620090	000150	208	0.25	13.64	2812	46	580D	0.0	36.0
		135	0.39	13.60	733	31			
		131	1.31	13.68	191	0			
620091	000246	238	0.28	12.29	3523	46	430D	4.0	32.0
		226	0.19	12.27	2025	32			
		279	5.34	10.30	126	0			
620095	000329	226	0.20	13.72	166	0	475D	4.0	27.0
		246	0.26	13.15	1989	32			
		206	0.18	13.06	3464	46			
620218	000105	258	0.81	13.06	2942	46	900N	4.0	26.0
		219	0.60	13.16	1238	33			
		208	4.67	11.63	87	0			
620225	000232	206	1.92	12.62	151	0	700D	4.0	33.0
		234	0.53	12.79	1565	32			
		222	0.43	12.65	3183	47			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620231	000064	171	0.37	12.89	3049	46	720D	6.0	29.0
		184	0.22	13.38	2051	33			
		173	1.57	13.55	145	0			
620246	000191	152	0.16	12.02	4593	50	550D	5.0	27.0
		174	0.19	12.25	3494	35			
		500	9.37	8.09	102	0			
620256	000226	107	0.38	12.90	2408	51	610N	5.0	31.0
		134	0.41	12.99	1581	35			
		165	4.01	11.18	93	0			
620258	000183	251	0.41	12.25	2987	46	415D	0.0	26.0
		175	0.25	12.35	1079	33			
		315	8.13	8.70	59	0			
620265	000182	246	0.91	12.34	2745	46	528D	8.0	30.0
		160	0.37	12.42	1011	32			
		165	4.90	10.48	84	0			
620297	000108	203	0.58	13.47	2281	46	400N	6.0	33.0
		146	0.38	13.44	747	32			
		371	9.55	8.68	57	0			
620363	000203	232	0.31	12.09	2721	46	465D	6.0	34.0
		158	0.32	12.21	792	32			
		223	5.08	10.16	107	0			
620392	000330	185	0.12	12.10	98	0	425D	2.0	30.0
		205	0.28	13.48	2408	32			
		177	0.26	13.43	3864	46			
620393	000286	219	0.36	13.64	2738	46	510D	5.0	27.0
		138	0.27	13.58	886	32			
		143	0.45	14.16	167	0			
620424	000304	281	0.41	13.03	194	0	625D	6.0	29.0
		215	0.19	12.94	1861	31			
		214	0.32	13.19	3899	46			
620017	000036	64	0.32	13.51	1661	50	560D	4.0	30.0
		45	0.18	12.92	758	35			
		297	3.93	12.08	121	0			
620024	000025	97	0.27	13.29	2868	51	580D	4.0	22.0
		208	0.41	13.17	3310	35			
		114	0.12	12.07	245	1			
620025	000072	197	0.60	13.51	3180	50	510N	5.0	28.0
		253	0.38	13.52	2688	35			
		252	5.66	10.84	120	0			

WASHINGTON D.C. 1970 VEHICLES KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	IRPM	RT	DWL
620074	000039	121	0.23	13.23	3697	50	500D	4.0	28.0
		136	0.28	12.85	2320	35			
		215	2.82	12.57	142	0			
620075	000049	47	0.21	13.06	1832	50	470D	6.0	29.0
		142	0.23	13.07	3080	35			
		58	0.23	13.06	225	0			
620076	000119	185	0.79	13.52	3465	50	580D	6.0	29.0
		195	0.26	13.43	3355	35			
		91	0.18	13.30	370	0			
620077	000067	192	1.19	12.99	2890	46	550D	8.0	29.0
		149	0.19	12.81	2513	32			
		98	0.28	13.15	318	0			
620078	000081	142	0.34	13.62	2622	46	560D	4.0	28.0
		127	0.24	13.48	1254	32			
		239	4.77	11.66	120	0			
620079	000062	116	0.29	13.47	3431	54	580D	6.0	26.5
		123	0.31	12.42	1987	36			
		262	3.06	12.66	175	0			
620088	000083	94	0.44	13.80	1562	50	460D	6.0	28.0
		90	0.52	13.69	906	35			
		392	6.69	10.39	87	0			
620096	000259	110	0.20	13.20	2621	50	500D	6.0	29.0
		104	0.17	13.03	1463	35			
		269	5.46	11.21	108	0			
620097	000300	266	2.59	13.26	171	0	540D	6.0	32.0
		161	0.68	13.50	1507	35			
		122	0.87	13.43	2062	51			
620098	000205	134	0.51	12.48	2051	50	435D	6.0	27.0
		128	0.27	12.09	1350	35			
		109	0.35	12.57	133	0			
620194	000269	241	0.61	13.60	2540	46	570D	6.0	31.0
		204	0.26	13.39	1654	32			
		244	1.52	13.29	217	0			
620207	000047	94	0.20	13.03	3365	50	410D	4.0	25.0
		157	0.18	12.77	3458	35			
		270	6.65	10.18	105	0			
620226	000151	170	2.28	13.68	132	0	550D	6.0	35.0
		194	0.19	13.46	2713	35			
		140	0.41	13.26	2717	50			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620236	000180	130	0.58	12.35	2222	51	5160	2.0	35.0
		201	0.48	12.50	2225	35			
		68	0.12	11.43	194	0			
620242	000051	139	0.52	13.48	3124	46	590D	0.0	32.0
		116	0.18	13.14	1881	32			
		153	1.52	13.50	211	0			
620099	000266	144	0.18	13.33	3335	50	500D	6.0	33.0
		151	0.16	13.20	2351	35			
		252	5.48	9.10	123	0			
620228	000270	52	0.21	13.58	1644	50	4500	5.0	31.0
		57	0.28	13.98	932	35			
		112	0.65	14.25	155	0			
620234	000032	221	0.48	13.67	3912	50	6000	9.0	29.0
		219	0.23	13.33	3558	35			
		317	6.35	10.45	116	0			
620238	000195	110	0.70	12.86	1684	51	615D	4.0	26.0
		77	0.43	12.81	820	35			
		79	0.12	12.16	193	0			
620273	000250	287	5.63	10.47	-1	0	475D	6.0	27.0
		173	0.27	12.66	-4	36			
		157	0.68	12.66	-4	51			
620279	000190	146	0.21	12.14	3490	50	462D	2.0	28.0
		164	0.16	12.05	2799	35			
		172	0.49	12.91	196	0			
620308	000258	359	5.46	10.22	87	0	490D	6.0	29.0
		194	0.32	12.32	2013	35			
		122	0.24	12.09	2719	51			
620323	000033	76	0.17	13.53	3253	50	580D	6.0	31.0
		87	0.16	13.11	2265	36			
		65	0.16	13.84	193	0			
620396	000288	824	1.53	12.47	140	0	430D	6.0	29.0
		232	0.43	13.95	2149	36			
		158	0.64	13.59	2714	51			
620199	000281	163	1.24	13.80	2208	50	550D	8.0	31.0
		100	0.20	13.76	1295	35			
		112	1.89	13.79	163	0			
620239	000061	119	0.87	13.52	1823	50	500D	4.0	30.0
		69	0.57	13.69	853	35			
		237	3.11	12.52	145	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620266	000131	158	1.10	12.99	2260	50	450D	0.0	38.0
		143	0.40	13.23	1578	35			
		155	3.20	12.41	114	0			
620443	000349	370	2.87	13.04	174	0	530D	4.0	29.0
		243	2.20	13.42	995	35			
		228	2.39	13.18	1610	50			
620086	000147	95	0.22	12.62	3715	46	630D	8.0	33.0
		153	0.38	13.12	3352	32			
		105	1.01	10.67	223	0			
620087	000170	135	0.34	12.94	3522	46	600D	6.0	29.0
		199	0.65	13.56	3227	32			
		112	0.46	13.99	252	0			
620089	000192	102	0.67	12.39	3153	47	452D	8.0	37.0
		131	0.77	12.92	1994	32			
		193	6.65	9.78	100	0			
620235	000052	96	0.32	13.42	2201	46	680N	5.0	36.0
		92	0.25	13.45	1120	32			
		113	2.87	12.94	88	0			
620420	000272	142	1.27	13.89	156	0	490D	0.0	38.0
		183	0.36	13.74	2448	26			
		91	1.04	13.46	1784	39			
620245	000034	620	2.55	11.74	1079	49	950N	-10.0	34.0
		843	3.01	11.58	369	36			
		3275	7.17	6.82	51	0			
620334	000166	468	2.29	13.41	130	0	650D	2.0	30.0
		168	0.30	13.37	1343	36			
		148	0.49	13.62	2703	49			
620414	000181	145	0.22	12.22	3692	50	632D	6.0	26.0
		107	0.18	11.01	901	35			
		351	0.24	10.76	91	0			
620338	000097	135	0.24	13.15	3434	50	680D	6.0	28.0
		132	0.22	13.05	2205	35			
		202	5.20	10.85	104	0			
620101	000241	380	1.51	12.50	120	0	465D	6.0	29.0
		176	0.28	12.20	1691	35			
		205	0.86	12.49	2667	51			
620200	000164	149	2.95	13.10	136	0	610D	8.0	31.0
		188	0.27	13.65	2077	35			
		170	0.67	13.54	2956	50			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NC	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620001	000016	22	0.25	11.73	1120	49	635D	-1.0	32.0
		17	0.18	11.13	602	35			
		70	0.23	10.60	277	0			
620398	000283	56	0.72	13.15	1243	51	840D	6.0	34.0
		44	0.45	12.56	904	36			
		101	0.44	12.08	378	0			
620267	000249	52	0.23	11.21	1421	46	540D	0.0	34.0
		99	0.21	10.86	1158	32			
		317	7.28	8.81	108	0			
620272	000142	23	0.22	12.86	1304	46	600D	-2.0	28.0
		19	0.16	12.26	512	32			
		104	0.19	13.58	330	0			
620282	000161	108	0.57	13.78	1715	46	570N	0.0	33.0
		102	0.21	12.96	1184	32			
		158	3.83	12.19	116	0			
620305	000238	293	2.69	11.78	107	0	440D	8.0	36.0
		173	0.16	11.60	1819	31			
		115	0.18	12.03	2601	45			
620032	000013	97	0.24	13.16	3383	46	720D	4.0	31.0
		103	0.15	12.63	2486	32			
		257	6.20	9.81	108	0			
620110	000120	92	0.19	12.88	2821	46	620D	0.0	28.0
		123	0.17	13.19	1501	32			
		167	5.39	11.11	106	0			
620111	000103	87	0.13	13.33	4465	46	600N	0.0	26.0
		136	0.23	13.81	2791	32			
		212	5.91	10.97	98	0			
620112	000130	48	0.22	12.17	1690	46	550D	5.0	30.0
		238	1.76	13.17	1962	32			
		368	9.22	8.78	75	0			
620268	000316	254	5.40	11.47	145	0	700N	4.0	39.0
		142	0.17	13.76	2656	32			
		96	0.15	13.19	4502	46			
620269	000165	61	0.39	14.32	125	0	750N	-2.0	28.0
		148	0.19	13.73	1559	32			
		83	0.19	12.93	2732	46			
620280	000050	46	0.24	12.72	2137	46	550N	4.0	31.0
		86	0.17	13.41	2110	32			
		238	8.14	9.92	88	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620281	000230	222	5.51	10.27	94	0	525D	0.0	36.0
		102	0.17	12.16	1126	32			
		64	0.19	12.53	1996	46			
620293	000225	62	0.20	11.63	2146	46	500D	4.0	37.0
		63	0.19	11.13	513	33			
		329	7.36	9.15	82	0			
620304	000247	73	0.20	12.14	2989	46	610D	1.0	39.0
		90	0.20	12.54	1683	32			
		178	5.97	9.93	121	0			
620307	000048	63	0.21	12.14	2205	46	540D	5.0	29.0
		129	0.18	12.43	2751	32			
		310	7.22	9.97	121	0			
620309	000146	54	0.17	13.09	2638	46	450D	6.0	44.0
		76	0.16	12.85	2001	32			
		268	6.97	10.19	116	0			
620316	000208	65	0.20	12.47	1728	46	570D	4.0	36.0
		123	0.19	11.85	1640	32			
		278	5.84	10.06	142	0			
620347	000243	71	0.18	11.66	1548	46	545N	0.0	38.0
		134	0.22	12.32	1235	32			
		139	2.07	12.20	122	0			
620003	000006	144	0.58	13.31	3189	46	580D	9.0	29.0
		209	0.53	13.06	2625	32			
		285	2.38	12.55	149	0			
620004	000001	177	0.49	13.77	3325	46	565D	6.0	26.0
		235	0.26	13.47	2850	32			
		299	2.00	13.47	130	0			
620105	000124	180	0.64	13.63	3223	46	500D	6.0	30.0
		230	0.77	13.36	2011	32			
		431	8.33	9.31	71	0			
620108	000073	172	0.72	13.46	2314	46	540D	6.0	29.0
		257	0.50	13.47	2327	32			
		346	4.19	11.83	163	0			
620117	000254	404	6.07	9.67	75	0	490D	7.0	27.0
		236	0.29	12.53	2582	32			
		195	0.84	12.50	3238	46			
620118	000211	202	1.09	12.25	2279	46	460D	8.0	30.0
		256	1.27	12.08	1486	32			
		439	7.60	8.89	70	2			

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CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPH	BT	DWL
620119	000251	342	4.12	11.20	107	0	580D	5.0	30.0
		263	0.65	12.61	1977	31			
		252	2.02	12.38	2054	46			
620120	000236	113	0.39	12.29	1883	51	400D	6.0	31.0
		152	0.24	12.14	1865	36			
		371	6.08	9.63	94	0			
620198	000128	165	1.16	13.35	2250	46	780N	3.0	30.0
		152	0.23	13.51	1408	32			
		540	4.85	11.27	90	0			
620210	000038	183	0.51	13.35	3686	46	950N	8.0	20.0
		187	0.19	12.93	2326	32			
		392	0.55	13.03	142	0			
620230	000065	140	0.53	13.59	2933	46	620D	6.0	29.0
		204	0.62	13.34	2322	33			
		305	3.77	12.17	120	0			
620283	000308	277	1.95	12.74	96	0	920N	2.0	28.0
		190	0.47	13.21	1463	32			
		182	0.75	13.60	2926	46			
620303	000245	172	0.28	12.14	3205	46	730N	2.0	30.0
		180	0.18	11.89	1738	32			
		307	6.49	9.27	98	0			
620317	000221	178	0.17	11.86	3112	47	600D	11.0	35.0
		187	0.16	11.11	2089	32			
		199	0.14	11.97	386	0			
620348	000113	161	1.01	13.67	2877	47	720N	4.0	28.0
		173	0.53	13.79	1805	33			
		412	7.29	10.01	80	0			
620427	000328	405	4.96	11.39	98	0	475D	6.0	28.5
		261	0.85	13.59	2397	32			
		155	0.68	13.16	2822	46			
620433	000340	520	6.36	10.09	83	0	390D	6.0	29.0
		221	0.17	12.81	2740	32			
		174	0.26	12.55	3090	46			
620006	000011	236	0.29	12.73	3809	48	730D	4.0	34.0
		296	1.22	12.61	2255	33			
		341	5.84	9.55	104	0			
620216	000091	183	0.49	13.76	2120	46	720D	-4.0	32.0
		271	1.43	13.60	952	32			
		99	1.35	13.40	94	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NU	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620306	000077	208	1.17	13.86	2640	50	400D	2.0	31.0
		261	1.27	13.86	1866	36			
		447	4.33	11.89	101	0			
620311	000135	205	0.16	13.67	4141	50	580D	10.0	27.0
		249	0.15	13.70	3451	35			
		262	2.38	13.23	162	0			
620314	000107	199	0.28	13.56	4831	50	760N	4.0	31.0
		262	1.52	13.23	3839	35			
		1245	3.81	10.91	132	0			
620329	000054	199	0.50	13.90	3253	46	800N	6.0	27.0
		355	2.88	12.82	1201	32			
		1853	10.44	6.86	81	0			
620332	000148	128	0.16	13.25	3471	51	660D	10.0	28.0
		205	0.44	13.65	2764	37			
		241	2.89	12.75	187	0			
620336	000070	100	0.21	13.07	2766	50	580D	6.0	33.0
		206	0.91	13.59	1988	35			
		277	6.32	10.45	110	0			
620339	000085	120	0.43	12.15	2772	50	580D	9.0	30.0
		397	0.32	11.40	2139	36			
		319	2.92	11.90	123	0			
620344	000178	256	4.28	10.85	89	0	580D	6.0	28.0
		148	0.26	12.36	2071	35			
		93	0.24	11.92	2411	51			
620351	000282	131	0.77	14.31	3266	50	450D	3.0	31.0
		146	0.23	14.10	2089	36			
		208	2.16	13.60	808	0			
620428	000336	420	2.03	12.11	170	0	550D	6.0	30.0
		166	0.21	13.14	1318	35			
		126	0.22	13.28	2256	50			
620429	000198	370	4.29	11.10	99	0	525D	6.0	27.5
		296	0.33	13.00	3077	35			
		224	0.33	13.06	4004	50			
620438	000339	341	4.63	10.42	88	0	520D	4.0	28.0
		248	0.21	13.04	3032	35			
		202	0.25	13.19	3740	50			
620263	000129	124	0.22	13.71	1985	46	630N	2.0	31.0
		358	4.74	11.45	381	32			
		355	5.40	10.59	76	0			

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KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	IRPM	BT	DWL
620010	000018	121	0.18	12.41	3093	51	730D	10.0	24.0
		170	0.40	12.12	2027	35			
		325	4.12	11.23	133	0			
620102	000053	98	0.18	13.09	2588	50	630D	4.0	30.0
		179	0.53	13.13	1662	36			
		241	4.21	12.17	123	0			
620104	000040	170	0.83	13.67	3038	50	650D	5.0	27.0
		255	1.73	13.37	2063	35			
		257	3.80	12.27	168	0			
620106	000306	276	1.79	13.06	126	0	450D	4.0	30.0
		246	2.17	11.83	1008	31			
		213	1.37	13.13	2791	46			
620109	000058	91	0.20	12.70	2679	50	400D	4.0	34.0
		150	0.39	13.26	2660	35			
		324	5.24	10.98	95	0			
620121	000186	120	0.32	12.37	2657	50	544D	4.0	30.0
		152	0.37	12.38	2350	35			
		502	5.03	10.09	82	0			
620123	000324	278	2.13	13.15	179	0	490D	0.0	31.0
		202	0.51	13.47	2769	35			
		111	0.16	13.08	3310	50			
620124	000287	192	3.03	12.95	1390	50	500D	2.0	31.0
		262	4.27	12.07	1032	35			
		201	1.62	13.77	227	0			
620126	000294	129	0.34	13.83	2473	46	510D	0.0	25.0
		111	0.16	13.33	1408	32			
		183	3.45	12.63	115	0			
620128	000317	199	3.39	12.42	154	0	640D	4.0	30.0
		147	0.53	13.61	1900	34			
		85	0.27	13.39	2592	51			
620129	000140	142	0.32	13.42	3310	50	470D	4.0	31.0
		203	1.48	12.49	1548	35			
		306	6.23	10.38	101	0			
620130	000312	349	3.31	12.71	119	0	520D	-2.0	28.0
		194	0.18	13.32	2095	32			
		142	0.22	13.26	3036	46			
620131	000305	343	5.60	10.94	113	0	480D	2.0	30.0
		249	1.36	13.63	2153	31			
		148	0.40	13.77	3286	46			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620224	000268	256	3.76	12.42	124	0	590D	2.0	27.0
		263	1.41	13.59	1723	33			
		210	1.09	13.73	2733	46			
620247	000307	187	0.39	13.61	3403	50	610D	4.0	32.0
		250	1.17	13.43	2203	35			
		217	2.12	12.89	232	0			
620248	000167	395	8.36	9.27	74	0	620D	6.0	29.0
		206	0.86	14.02	2908	35			
		145	0.38	14.11	4099	50			
620251	000037	90	0.16	13.09	3632	50	650D	5.0	29.0
		122	0.29	12.87	2485	35			
		102	0.23	13.72	281	0			
620254	000276	220	1.77	13.58	1814	46	460D	4.0	30.0
		142	0.17	13.05	1420	32			
		227	3.04	12.16	98	0			
620345	000139	136	0.35	14.10	2759	50	670D	2.0	27.0
		261	1.07	14.03	2028	35			
		223	3.11	13.14	230	0			
620419	000279	167	1.23	13.74	4153	50	500N	4.0	32.0
		143	0.22	13.54	3029	35			
		294	4.55	11.67	268	0			
620103	000055	88	0.41	13.66	2763	51	400D	4.0	33.0
		75	0.16	12.90	1607	35			
		143	0.85	13.90	155	0			
620290	000169	143	0.97	13.25	2882	50	540D	4.0	28.0
		107	0.23	12.77	1942	35			
		313	6.21	10.28	84	0			
620310	000323	918	4.10	11.25	136	0	540D	2.0	32.0
		179	0.34	13.17	2193	35			
		155	1.09	13.50	2719	50			
620315	000222	116	1.20	12.34	2584	51	550D	6.0	30.0
		94	0.20	12.30	2843	35			
		163	1.71	12.49	230	0			
620326	000331	137	1.57	11.64	144	0	500D	8.0	30.0
		80	0.20	12.68	2179	35			
		105	1.05	12.90	2892	50			
620335	000076	108	0.78	13.48	2946	51	675D	4.0	29.0
		86	0.14	12.82	2031	34			
		160	3.84	12.33	108	0			

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CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	KEYMODE TEST DATA IRPM	BT	DWL
620232	000141	87	0.21	13.64	2631	50	580D	6.0	28.0
		93	0.18	13.58	1506	35			
		236	1.88	12.92	133	0			
620002	000017	73	0.24	11.85	2678	50	470D	4.0	26.0
		138	0.23	12.34	2558	35			
		238	2.28	12.25	161	0			
620014	000027	89	0.22	12.63	3372	50	680D	9.0	24.0
		96	0.18	12.56	1777	36			
		231	1.77	12.68	579	0			
620027	000012	133	0.20	12.52	3973	50	720D	7.0	24.0
		144	0.26	12.34	2240	35			
		216	1.93	12.34	170	0			
620132	000045	88	0.20	12.83	3908	51	690D	10.0	31.0
		123	0.19	12.44	2109	35			
		91	0.15	12.77	293	0			
620133	000144	142	0.24	12.75	3738	50	600D	7.0	33.0
		207	0.45	13.24	2946	35			
		227	3.00	12.35	217	0			
620137	000347	370	3.70	11.63	120	0	440D	4.0	32.0
		210	0.29	13.12	2888	35			
		133	0.17	12.87	4009	50			
620253	000114	76	0.21	12.65	2362	50	600D	5.0	35.0
		179	0.30	13.44	2706	36			
		338	1.93	13.27	919	0			
620328	000086	100	0.19	13.13	2418	50	670D	8.0	29.0
		147	0.36	13.73	1996	35			
		180	2.55	13.21	250	0			
620418	000311	354	4.22	11.62	124	0	465D	0.0	27.0
		182	0.20	13.04	2723	35			
		102	0.20	12.26	2368	50			
620134	000092	113	0.18	12.86	2382	50	550D	9.0	30.0
		168	0.34	13.35	1753	35			
		475	4.27	11.76	130	0			
620135	000090	120	0.17	12.75	2748	50	670D	7.0	31.0
		192	0.49	13.36	2368	35			
		317	1.75	13.18	596	0			
620139	000284	252	3.24	12.84	161	0	500D	2.0	28.0
		207	0.18	13.43	2705	36			
		101	0.18	13.24	2441	51			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620219	000301	225	0.18	11.66	418	0	600D	6.0	30.0
		96	0.17	12.59	1120	35			
		72	0.16	12.77	2078	51			
620270	000293	136	0.17	12.94	3221	51	500D	8.0	31.0
		177	0.20	13.11	3160	35			
		283	3.22	11.89	234	0			
620295	000043	-1	-1.00	-1.00	-1	50	D	.	.
		-1	-1.00	-1.00	-1	30			
		-1	-1.00	-1.00	-1	0			
620136	000093	125	0.18	12.91	2635	50	490D	4.0	35.0
		173	0.23	13.57	1786	35			
		676	8.80	8.56	51	0			
620140	000346	144	0.13	13.26	257	0	620D	8.0	31.0
		156	0.17	13.21	2038	35			
		98	0.19	12.86	2687	50			
620330	000069	428	0.19	13.17	2551	51	580D	6.0	27.0
		191	0.50	14.04	1572	35			
		481	6.00	10.45	66	0			
620403	000218	126	0.15	11.83	3086	51	650D	4.0	33.0
		143	0.15	12.08	2340	35			
		281	1.50	12.52	158	0			
620013	000026	94	0.19	13.15	2458	51	560D	2.0	34.0
		121	0.18	13.72	1739	36			
		264	4.64	11.75	57	0			
620142	000310	125	0.12	11.99	153	0	525D	6.0	29.0
		142	0.19	13.50	2464	35			
		102	0.17	13.39	3525	51			
620274	000030	85	0.21	13.16	3013	50	650D	6.0	28.0
		152	0.48	13.73	2339	35			
		94	0.42	14.00	193	0			
620321	000273	64	0.20	13.29	1914	50	600D	6.0	30.0
		89	0.19	13.68	1341	35			
		61	0.19	13.78	179	0			
620143	000041	113	0.21	13.42	3817	50	575D	16.0	30.0
		204	0.95	13.06	2729	35			
		268	4.55	11.48	125	0			
620144	000207	218	1.17	12.10	1490	35	400D	10.0	34.0
		103	0.28	12.41	1645	50			
		299	7.97	8.83	72	0			

WASHINGTON D.C.

1970 VEHICLES

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NO	KEY MODE MPH	KEYMODE TEST DATA IRPM	BT	DWL
620145	000296	179	1.19	13.68	2058	51	810N	6.0	29.0
		223	1.65	13.34	1279	35			
		104	0.58	13.64	99	0			
620146	000325	413	5.90	10.75	90	0	435D	6.0	32.0
		306	1.37	13.42	1781	35			
		209	0.53	13.79	2775	50			
620147	000264	86	0.19	13.75	2168	50	540D	8.0	32.0
		156	0.85	13.64	1505	35			
		153	2.96	12.43	115	0			
620148	000176	158	1.48	12.09	87	0	580D	5.0	28.0
		134	0.53	12.66	862	35			
		61	0.22	12.42	1235	49			
620149	000278	150	0.99	13.93	1800	50	430D	-2.0	29.0
		188	0.73	13.74	1896	35			
		309	7.36	10.00	94	0			
620151	000302	149	1.14	13.55	184	0	520D	-2.0	30.0
		155	1.05	14.09	1825	36			
		95	0.58	14.37	2135	51			
620318	000289	301	0.91	12.64	113	0	475D	4.0	29.0
		246	0.81	13.12	1524	34			
		102	0.24	13.18	2062	51			
620446	000298	98	1.34	13.92	1315	50	490D	4.0	30.0
		112	0.65	13.86	1539	35			
		103	1.08	13.07	170	0			
620154	000145	68	0.17	13.77	2677	50	550D	8.0	29.0
		102	0.22	13.79	2256	35			
		96	0.82	13.14	131	0			
620212	000171	101	0.65	13.57	2567	50	450D	8.0	28.0
		169	1.57	13.34	1402	35			
		431	8.55	8.04	51	0			
620221	000152	65	0.23	12.95	2359	49	540D	8.0	30.0
		155	0.29	13.56	2191	35			
		140	1.41	12.42	102	0			
620237	000060	22	0.17	13.64	1371	49	660D	8.0	31.0
		64	0.18	14.46	1913	35			
		54	0.47	14.00	170	0			
620276	000292	30	0.16	14.51	1285	50	450D	6.0	30.0
		70	0.47	14.90	1450	35			
		121	3.44	12.51	108	0			

WASHINGTON D.C. — 1970 VEHICLES — KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	KEY MODE CO	KEY MODE CO2	KEY MODE NC	KEY MODE MPH	IRPM	BT	DWL
620152	000167	193	0.28	13.72	2700	50	550D	8.0	29.0
		298	0.78	13.61	1869	35			
		215	1.55	13.43	149	0			
620277	000177	115	0.30	12.88	112	0	600D	4.0	29.0
		137	0.23	12.88	1319	35			
		90	0.18	12.49	1947	50			
620153	000299	132	1.35	13.22	97	0	560D	4.0	28.0
		135	0.67	13.78	1458	34			
		101	0.64	13.68	2674	50			
620208	000115	50	0.41	13.54	1703	50	580D	8.0	30.0
		79	0.52	13.95	1152	36			
		98	2.11	13.08	140	0			
620324	000168	113	0.47	13.40	2120	49	525D	6.0	30.0
		165	1.22	13.04	1411	35			
		179	2.90	12.64	115	0			
620170	000291	43	0.17	13.38	1612	50	530D	4.0	28.0
		107	0.20	13.87	1964	35			
		200	4.11	11.88	157	0			
620171	000118	69	0.23	13.01	2547	50	520D	6.0	26.0
		182	0.85	13.41	1734	35			
		137	1.41	13.06	255	0			
620271	000111	52	0.19	13.11	2955	50	600D	4.0	19.0
		76	0.20	13.42	1856	35			
		167	0.41	13.25	208	0			
620301	000223	109	0.46	12.94	2425	51	530D	4.0	32.0
		129	0.39	12.90	1672	36			
		220	5.39	10.01	110	0			
620322	000031	130	0.18	13.10	4645	50	600D	6.0	29.0
		189	0.30	13.60	2523	35			
		234	3.19	12.33	145	0			
620005	000020	100	0.68	13.09	1544	50	530D	4.0	.
		100	0.41	13.32	799	35			
		194	4.92	11.10	102	0			
620163	000234	45	0.25	12.46	1413	51	510D	6.0	29.0
		107	0.67	12.62	1265	36			
		148	3.41	11.43	126	0			
620164	000275	59	0.28	13.27	1274	50	500D	6.0	28.0
		90	1.03	13.63	716	35			
		317	7.41	9.40	75	0			

WASHINGTON D.C.

CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620166	000173	37	0.24	13.61	1488	50	550D	5.0	27.0
		137	1.52	13.75	1035	35			
		261	8.55	9.51	71	0			
620167	000121	88	0.21	12.95	2116	50	550D	4.0	28.0
		169	0.72	13.47	1595	35			
		202	1.97	12.96	182	0			
620168	000209	58	0.18	12.47	2034	50	640D	8.0	26.0
		88	0.18	12.80	1384	35			
		147	4.98	10.73	87	0			
620169	000267	212	5.39	11.88	99	0	545D	4.0	30.0
		118	0.85	14.56	1273	35			
		52	0.23	13.93	1878	51			
620409	000322	219	2.26	12.82	116	0	420D	5.0	29.0
		161	0.68	13.51	1752	35			
		89	0.40	13.79	2266	50			
620410	000319	201	0.97	13.57	261	0	475D	4.0	31.0
		143	0.61	13.65	1924	35			
		63	0.23	13.28	2094	50			
620155	000028	137	0.18	13.48	5034	50	660D	6.0	25.0
		194	0.39	13.73	3486	35			
		236	1.90	12.86	261	0			
620156	000252	139	0.21	12.79	4636	50	500D	4.0	31.0
		189	0.38	12.95	3056	35			
		216	2.54	11.95	184	0			
620157	000261	137	0.42	14.23	3223	50	535D	2.0	28.0
		173	1.26	14.05	1240	35			
		128	2.15	13.62	170	0			
620159	000271	187	2.48	12.75	135	0	575D	5.0	33.0
		106	0.21	13.80	1631	36			
		85	0.20	13.41	3456	50			
620160	000309	141	2.07	13.39	129	0	540D	4.0	30.0
		121	0.27	14.24	2429	35			
		96	0.21	14.16	4183	50			
620161	000162	689	5.52	10.76	101	0	575D	4.0	28.5
		207	0.51	14.16	1885	35			
		153	0.26	13.92	4214	50			
620162	000122	159	0.42	13.87	3924	50	550D	4.0	33.0
		184	0.56	13.98	1886	35			
		237	3.77	12.09	130	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620241	000277	141	0.25	14.07	3679	50	480D	5.0	30.0
		165	0.23	14.30	2344	35			
		249	4.22	12.13	154	0			
620252	000046	137	0.28	13.43	4545	50	700D	8.0	29.0
		207	0.44	13.64	3179	36			
		249	3.62	11.70	121	0			
620423	000303	174	0.93	13.21	209	0	620D	4.0	31.0
		222	0.71	13.44	1854	35			
		133	0.19	13.05	4344	50			
620173	000125	94	0.18	13.55	3564	50	500D	10.0	27.0
		180	1.12	13.70	2268	35			
		161	1.46	13.42	208	0			
620174	000112	89	0.16	12.85	3365	50	620D	6.0	30.0
		117	0.19	13.78	2199	36			
		173	2.24	13.05	135	0			
620257	000008	70	0.15	13.46	3509	50	640D	6.0	29.0
		127	0.50	14.44	2062	35			
		141	3.05	13.00	137	0			
620262	000102	33	0.17	13.35	1234	50	575D	4.0	32.0
		40	0.21	14.09	921	36			
		237	4.68	11.79	102	0			
620294	000088	223	0.16	13.21	3918	50	660D	20.0	27.0
		688	0.93	13.26	2046	35			
		333	5.97	10.70	136	0			
620296	000078	30	0.18	13.13	1167	50	730D	7.5	30.0
		51	0.29	14.11	1031	36			
		142	2.28	13.16	183	0			
620319	000138	102	0.15	13.39	3809	50	710D	5.0	32.0
		151	0.60	13.90	2133	36			
		184	3.68	12.18	153	0			
620179	000096	116	0.75	13.69	2380	38	690N	0.0	54.0
		137	1.31	13.59	1026	25			
		210	3.34	12.44	149	0			
620180	000068	126	3.42	12.68	1238	38	730N	0.0	50.0
		112	1.36	13.69	1323	25			
		167	3.27	12.21	123	0			
620182	000109	152	0.50	13.37	2684	38	820N	0.0	48.0
		111	0.14	13.02	1348	25			
		148	0.35	12.70	85	0			

WASHINGTON D.C. 1970 VEHICLES KEYMODE TEST DATA

CAR NO	RUN NO	KEY MODE HC	CO	CO2	NO	MPH	IRPM	BT	DWL
620011	000002	105	1.28	13.37	2434	38	1350N	-2.0	58.0
		101	0.17	13.49	2506	25			
		70	0.14	12.98	94	0			
620015	000116	69	0.14	12.74	2643	37	1100N	0.0	54.0
		89	0.13	12.74	1733	25			
		96	3.22	12.22	101	0			
620028	000021	138	1.68	12.92	2824	46	940N	0.0	50.0
		118	0.35	12.89	2886	32			
		114	3.40	12.23	109	0			
620031	000022	173	1.66	12.90	2874	46	950N	0.0	52.0
		129	0.19	13.01	3636	32			
		381	9.18	8.50	75	0			
620175	000110	136	0.23	12.85	3259	38	860N	0.0	54.0
		150	0.37	12.96	1806	25			
		270	5.45	9.66	82	0			
620177	000042	93	0.51	13.09	2747	38	640N	0.0	55.0
		73	0.14	12.90	1530	25			
		105	0.80	11.76	102	0			
620181	000313	384	5.26	5.77	42	0	740N	5.0	54.0
		118	0.16	13.45	1328	25			
		94	0.73	12.65	1589	38			
620183	000029	120	0.45	13.68	3589	38	770N	0.0	54.0
		81	0.16	13.25	1451	25			
		129	1.01	11.78	97	0			
620185	000143	124	0.68	12.36	2178	38	975N	-2.0	52.0
		148	0.18	12.76	2090	25			
		113	2.57	11.31	95	0			
620187	000159	90	0.18	13.31	1985	38	750N	3.0	56.0
		148	0.75	13.04	1251	25			
		147	2.58	10.60	81	0			
620189	000177	383	7.76	7.80	69	0	1150N	0.0	57.0
		165	1.74	12.25	416	25			
		122	0.18	12.29	2189	38			
620190	000265	243	3.00	10.42	76	0	850N	5.0	49.0
		121	0.17	13.65	1442	25			
		98	0.29	13.18	2371	38			
620193	000154	125	0.99	12.48	1344	38	950N	1.0	58.0
		139	0.17	13.61	2122	25			
		162	3.79	12.00	108	0			

WASHINGTON D.C. CAR NO	RUN NO	1970 VEHICLES KEY MODE HC	CO	CO2	NO	MPH	KEYMODE TEST DATA IRPM	BT	DWL
620205	000158	122	0.14	13.09	3606	38	860N	1.0	58.0
		136	0.15	13.34	1519	25			
		180	3.99	10.79	95	0			
620413	000320	203	0.40	9.88	84	0	600D	0.0	49.0
		143	0.77	13.70	3010	38			
		110	0.15	13.37	2059	25			
620422	000295	181	0.70	12.59	1921	38	920N	5.0	54.0
		227	0.59	13.24	2364	25			
		165	4.88	9.69	85	0			
620436	000337	561	0.16	11.08	58	0	990N	0.0	54.0
		149	0.16	13.04	3446	32			
		150	2.74	12.30	2204	46			
620445	000344	226	4.96	8.99	72	0	775N	0.0	54.0
		148	0.44	13.18	1569	25			
		135	0.23	12.89	4006	38			

APPENDIX F

KEY MODE REGRESSION DATA

1. Regression Terms

   Table: F-1

2. Difference Tables

   (i) Legend and Interpretation of KEY MODE Difference Tables.

   (ii) Tables:

   F-2 Hydrocarbons

   F-3 Carbon Monoxide

   F-4 Nitrogen Oxides

TABLE F-1

KEY MODE REGRESSION TERMS

	VARIABLE	MEAN	STAN. DEV.	COEFFICIENTS*	STAN. ERROR	F-VALUE	D.F.
HC	COMPOSITE	0.2602910l6E 03	0.160613602E 03	0.5683360080 02	0.1099869880 03	792.769	2094
	IDLE	0.296116211E 03	0.196215942C 03	0.2994855040 00			
	LOW CRUISE	0.229851761E 03	0.133084335E 03	0.6023489630 00			
	HIGH CRUISE	0.191912292E 03	0.112527832E 03	-0.1233682390 00			
CO	COMPOSITE	0.178105259E 01	0.108648205E 01	0.4330294020 00	0.5145148680 00	2421.265	2094
	IDLE	0.387710094E 01	0.273672771E 01	0.2007163870 00			
	LOW CRUISE	0.683598518E 00	0.849342883E 00	0.5400623200 00			
	HIGH CRUISE	0.839389741E 00	0.126413727E 01	0.2390307860 00			
NO	COMPOSITE	0.128606226E 04	0.5043671885 03	0.2521450640 03	0.3719504770 03	588.081	2095
	IDLE	0.1413749396 03	0.111946472E 03	0.2313823420 00			
	LOW CRUISE	0.199641577E 04	0.8147829596 03	0.2831772750 00			
	HIGH CRUISE	0.270757861E 04	0.900905273E 03	0.1609800080 00			

* The Empirical Constants a,b,c and d:

COMPOSITE = a
IDLE = b
LOW CRUISE = c
HIGH CRUISE = d

LEGEND AND INTERPRETATION OF KEY MODE DIFFERENCE TABLES

Key Words	Description
MFG	A code denoting the manufacturer and engine displacement of the test vehicle. See accompanying table for description of displacement classes.
CAR NO	This is the number used to identify each vehicle and the location where test was conducted. The first number denotes the location. 1 = Kansas City, Missouri 2 = Houston, Texas 3 = Los Angeles, California 4 = Detroit, Michigan 5 = Denver, Colorado 6 = Washington, D.C.
RUN NO	This is a sequential number assigned to each test in each city.
KEY MODE	Clayton KEY MODE emission results at idle, low cruise, and high cruise in parts per million (volume) for hydrocarbons and nitrogen oxides, and in percent (volume) for carbon monoxide and carbon dioxide.
COMPOSITE OBSERVED	This represents the corrected and weighted emission results of the entire Federal 7-mode test as measured in parts per million (volume) for hydrocarbons and nitrogen oxides as dry NO, and in percent (volume) for carbon monoxide.
CALC	This represents the calculated value of the Federal 7-mode test using the derived equation.
DIFF	This represents the difference between the calculated value and the observed value of the Federal 7-mode tests (CALC-OBSERVED).

NATIONAL SURVEILLANCE PROGRAM
1970 MODELS
DESCRIPTION OF DISPLACEMENT CLASSES

Mfg. Class	CID	Carb BBL	Trans
AMERICAN MOTORS			
A02	199	1V	A & M
A01	232	1V	A & M
A03	232	2V	A only
A05	304	2V	A & M
A07	360	2V	A only
A08	360	4V	M only
A09	360	4V	A only
A10	390	4V	A only
A11	390	4V	M only
CHRYSLER CORPORATION			
C10	198	1V	A & M
C11	225	1V	A & M
C12	318	2V	A & M
C15	340	4V	A & M
C13	383	2V	A only
C17	383	4V	A only
C18	383	HP4V	A & M
C14	440	4V	A only
C19	440	HP4V	A & M
C20	440	6V	A & M
FORD MOTOR COMPANY			
F30	170	1V	A & M
F31	200	1V	A & M
* F32	200	1V	A & M
F37	240	1V	A & M
F38	250	1V	A & M
F33	302	2V	A & M
F39	302	4V	M only
F34	351	2V	A & M
F40	351	4V	A & M
F41	360	2V	A & M
F35	390	2V	A only
F42	390	4V	A & M
F44	428	4V	A & M
F45	429	2V	A only
F36	429	4V	A & M
F46	429	CJ4V&SW	A & M
F47	460	4V	A only

Mfg. Class	CID	Carb BBL	Trans
GENERAL MOTORS CORPORATION			
CHEVROLET			
G51	230	1V	A & M
G52	250	1V	A & M
G56	292	1V	A & M
G53	307	2V	A & M
G57	350	2V	A & M
G55	350	4V	A & M
G59	400	2V	A & M
G60	402	4V	A & M
G63	402	HP4V	M only
G64	454	4V	A & M
G65	454	HP4V	M only
PONTIAC			
G61	350	2V	A & M
G62	400	2V	A only
G68	400	4V	A & M
G70	455	4V	A & M
OLDSMOBILE			
G66	350	2V	A & M
G72	350	4V	A & M
G73	455	2V	A only
G67	455	4V	A & M
BUICK			
G74	350	2V	A only
G71	350	4V	A only
G75	455	4V	A only
CADILLAC			
G77	472	4V	A only
G78	500	4V	A only
VOLKSWAGEN			
V82	97	FI	A & M
V83	97	1V	A & M
V84	103	FI	M only

* Maverick only

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TABLE F-2

Hydrocarbons

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	120092	001298	156.00	116.00	48.00	156.00	167.50	11.50
A01	120100	001310	58.00	145.00	80.00	179.00	151.67	-27.33
A01	120222	001460	255.00	186.00	136.00	250.00	228.46	-21.54
A01	120243	001520	477.00	208.00	88.00	370.00	314.12	-55.88
A01	120254	001554	278.00	140.00	64.00	275.00	216.52	-58.48
A01	120256	001556	229.00	132.00	63.00	320.00	197.15	-122.85
A01	120265	001571	219.00	99.00	38.00	193.00	177.37	-15.63
A01	120273	001583	169.00	101.00	43.00	178.00	162.98	-15.02
A01	120280	001599	119.00	122.00	37.00	143.00	161.39	18.39
A01	220041	001083	175.00	135.00	85.00	186.00	180.07	-5.93
A01	220081	001192	368.00	235.00	170.00	485.00	287.62	-197.38
A01	220116	001251	171.00	149.00	78.00	217.00	188.17	-28.83
A01	220215	001563	114.00	175.00	130.00	211.00	180.35	-30.65
A01	220233	001589	170.00	161.00	97.00	252.00	192.76	-59.24
A01	220234	001590	374.00	151.00	76.00	224.00	250.42	26.42
A01	220268	001652	107.00	204.00	118.00	298.00	197.20	-90.80
A01	220282	001745	146.00	145.00	103.00	233.00	175.19	-57.81
A01	220322	001809	154.00	137.00	120.00	286.00	170.67	-115.33
A01	220383	002121	269.00	184.00	127.00	371.00	232.56	-138.44
A01	320076	100219	233.00	197.00	89.00	236.00	234.30	-1.70
A01	320114	100274	129.00	101.00	52.00	135.00	149.89	14.89
A01	320145	100304	246.00	145.00	87.00	237.00	207.11	-29.89
A01	320166	100364	66.00	94.00	60.00	152.00	125.82	-26.18
A01	320252	100475	150.00	115.00	81.00	167.00	161.03	-5.97
A01	320297	100912	145.00	47.00	30.00	164.00	124.87	-39.13
A01	320309	101408	146.00	138.00	87.00	253.00	172.95	-80.05
A01	320382	100796	295.00	190.00	112.00	344.00	245.81	-98.19
A01	320490	102239	120.00	172.00	66.00	300.00	188.23	-111.77
A01	420059	000061	119.00	161.00	106.00	197.00	176.37	-20.63
A01	420091	000098	165.00	125.00	96.00	189.00	169.70	-19.30
A01	420359	000424	128.00	108.00	52.00	174.00	153.81	-20.19
A01	420428	000527	196.00	140.00	101.00	173.00	187.40	14.40
A01	420463	000611	202.00	138.00	51.00	211.00	194.16	-16.84
A01	420478	000639	281.00	140.00	80.00	404.00	215.45	-188.55
A01	420487	000635	171.00	137.00	64.00	287.00	183.88	-103.12
A01	420521	000694	242.00	162.00	59.00	269.00	219.61	-49.39
A01	420522	000695	119.00	133.00	80.00	183.00	162.72	-20.28
A01	520014	100563	207.00	185.00	118.00	281.00	216.30	-64.70
A01	520128	100511	129.00	198.00	139.00	354.00	197.58	-156.42
A01	520129	100465	90.00	180.00	92.00	418.00	180.86	-237.14
A01	520139	100564	314.00	252.00	145.00	489.00	284.78	-204.22
A01	520150	100492	200.00	184.00	122.00	254.00	212.51	-41.49
A01	520185	100585	231.00	171.00	116.00	253.00	214.71	-38.29
A01	520308	100596	446.00	351.00	186.00	481.00	378.88	-102.12
A01	520309	100594	292.00	160.00	86.00	315.00	230.05	-84.95
A01	520323	100614	179.00	221.00	147.00	300.00	225.43	-74.57
A01	620033	000074	141.00	83.00	46.00	136.00	143.38	7.38
A01	620034	000210	140.00	107.00	77.00	313.00	150.70	-162.30
A01	620215	000066	110.00	101.00	48.00	172.00	144.69	-27.31
A01	620233	000100	67.00	138.00	81.00	241.00	150.03	-90.97

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	620240	000132	319.00	123.00	93.00	234.00	214.99	-19.01
A01	620244	000137	173.00	116.00	77.00	270.00	169.02	-100.98
A01	620249	000056	135.00	160.00	104.00	291.00	180.81	-110.19
A01	620261	000193	205.00	117.00	75.00	267.00	179.45	-87.55
A01	620264	000134	343.00	128.00	69.00	242.00	228.15	-13.85
A01	620288	000257	623.00	264.00	129.00	566.00	386.52	-179.48
A01	620291	000099	65.00	112.00	69.00	198.00	135.25	-62.75
A01	620292	000155	186.00	156.00	108.00	202.00	193.18	-8.82
A01	620368	000188	95.00	25.00	32.00	82.00	96.40	14.40
A02	120198	001421	203.00	167.00	130.00	235.00	202.18	-32.82
A02	120401	001715	236.00	358.00	271.00	534.00	309.72	-224.28
A02	220036	001069	90.00	136.00	88.00	202.00	154.85	-47.15
A02	320100	100275	139.00	34.00	63.00	90.00	111.17	21.17
A02	320310	100548	111.00	134.00	71.00	212.00	162.03	-49.97
A02	420173	000173	150.00	233.00	211.00	355.00	216.07	-138.93
A02	420510	000668	134.00	151.00	79.00	250.00	178.17	-71.83
A02	520315	100610	159.00	238.00	141.00	424.00	230.42	-193.58
A02	620035	000204	85.00	65.00	125.00	235.00	106.02	-128.98
A02	620229	000174	67.00	162.00	97.00	347.00	162.51	-184.49
A02	620350	000136	72.00	131.00	82.00	306.00	147.19	-158.81
A02	620366	000172	137.00	113.00	63.00	342.00	158.16	-183.84
A03	120242	001519	256.00	172.00	133.00	270.00	220.70	-49.30
A03	120274	001584	230.00	123.00	110.00	220.00	186.23	-33.77
A03	220327	000822	146.00	122.00	145.00	190.00	156.16	-33.84
A03	220370	001884	135.00	146.00	161.00	221.00	165.34	-55.66
A03	320312	101435	96.00	107.00	62.00	180.00	142.39	-37.61
A03	320392	101287	169.00	169.00	93.00	294.00	197.77	-96.23
A03	420764	000264	287.00	327.00	102.00	357.00	327.17	-29.83
A03	420386	000483	159.00	188.00	113.00	248.00	203.75	-44.25
A03	420425	000524	108.00	107.00	68.00	156.00	145.24	-10.76
A03	520067	100057	163.00	187.00	167.00	361.00	198.89	-162.11
A03	520312	100605	152.00	171.00	149.00	272.00	186.98	-85.02
A05	120173	001397	181.00	116.00	126.00	174.00	165.37	-8.63
A05	120245	001522	115.00	150.00	101.00	158.00	169.17	11.17
A05	120246	001524	156.00	128.00	122.00	167.00	165.60	-1.40
A05	220131	001313	129.00	88.00	73.00	120.00	139.47	19.47
A05	220307	001804	144.00	205.00	207.00	241.00	197.90	-43.10
A05	220308	001859	57.00	129.00	130.00	170.00	135.57	-34.43
A05	220384	002124	51.00	145.00	123.00	359.00	144.27	-214.73
A05	320147	100376	134.00	76.00	72.00	152.00	133.86	-18.14
A05	320158	101358	181.00	76.00	62.00	165.00	149.17	-15.83
A05	320369	100646	71.00	90.00	71.00	146.00	123.55	-22.45
A05	420410	000509	317.00	207.00	170.00	305.00	256.69	-48.31
A05	420413	000512	137.00	135.00	112.00	182.00	165.36	-16.64
A05	420460	000608	113.00	100.00	55.00	146.00	144.13	-1.87
A05	420462	000610	128.00	119.00	80.00	154.00	156.38	2.38
A05	520015	100017	200.00	121.00	117.00	319.00	175.18	-143.82
A05	520173	100432	185.00	200.00	207.00	282.00	207.17	-74.83
A05	520211	100521	227.00	177.00	144.00	364.00	213.67	-150.33
A05	520310	100595	281.00	192.00	177.00	322.00	234.80	-87.20

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A05	620023	000003	96.00	72.00	56.00	154.00	122.04	-31.96
A05	620204	000059	159.00	120.00	138.00	169.00	159.71	-9.29
A05	620220	000263	163.00	166.00	157.00	232.00	186.27	-45.73
A05	620223	000127	231.00	58.00	57.00	225.00	153.92	-71.08
A05	620349	000274	107.00	79.00	93.00	151.00	124.99	-26.01
A05	620370	000206	87.00	104.00	88.00	168.00	134.68	-33.32
A07	120008	001152	148.00	210.00	186.00	247.00	204.70	-42.30
A07	120044	001231	52.00	176.00	143.00	171.00	160.78	-10.22
A07	120239	001499	214.00	102.00	115.00	169.00	168.18	-0.82
A07	220286	001807	118.00	195.00	215.00	234.00	183.11	-50.89
A07	220376	001915	261.00	217.00	192.00	315.00	242.02	-72.98
A07	320491	102387	204.00	266.00	210.00	253.00	252.25	-0.75
A07	420248	000248	113.00	204.00	172.00	222.00	192.34	-29.66
A07	520314	100603	250.00	278.00	196.00	560.00	274.98	-285.02
A07	620362	000194	68.00	141.00	169.00	261.00	141.40	-119.60
A07	620371	000184	67.00	111.00	118.00	163.00	129.20	-33.80
A08	520304	100591	89.00	144.00	127.00	303.00	154.56	-148.44
A09	320350	100623	176.00	235.00	183.00	292.00	228.52	-63.48
A09	420394	000493	164.00	228.00	187.00	310.00	220.21	-89.79
A09	520068	100514	180.00	327.00	266.00	371.00	274.89	-96.11
A09	620036	000197	239.00	311.00	251.00	358.00	284.78	-73.22
A09	620192	000199	127.00	215.00	251.00	283.00	193.41	-89.59
A09	620373	000280	77.00	131.00	134.00	146.00	142.27	-3.73
A10	220298	001789	854.00	221.00	207.00	311.00	420.18	109.18
A10	320362	100642	49.00	99.00	146.00	199.00	113.13	-85.87
A10	520243	100496	235.00	259.00	226.00	399.00	255.34	-143.66
A10	620376	000237	107.00	153.00	166.00	174.00	160.56	-13.44
A10	620417	000202	146.00	246.00	209.00	266.00	222.95	-43.05
A11	120304	001663	111.00	92.00	94.00	251.00	133.90	-117.10
C10	120156	001375	205.00	184.00	122.00	266.00	214.01	-51.99
C10	120258	001560	136.00	114.00	116.00	189.00	151.92	-37.08
C10	120427	001757	327.00	273.00	138.00	631.00	302.18	-328.82
C10	120429	001794	218.00	182.00	119.00	276.00	217.07	-58.93
C10	220275	001729	242.00	210.00	133.00	388.00	239.39	-148.61
C10	220309	001798	129.00	203.00	244.00	246.00	187.64	-58.36
C10	220328	000818	150.00	161.00	121.00	238.00	183.81	-54.19
C10	220334	002085	78.00	194.00	104.00	357.00	184.22	-172.78
C10	220359	001904	324.00	189.00	128.00	281.00	251.92	-29.08
C10	320208	100396	222.00	134.00	108.00	317.00	190.71	-126.29
C10	320358	100647	69.00	124.00	88.00	201.00	141.33	-59.67
C10	420021	000029	160.00	123.00	100.00	198.00	166.50	-31.50
C10	420498	000656	143.00	129.00	109.00	211.00	164.41	-46.59
C10	420506	000664	300.00	178.00	118.00	281.00	239.34	-41.66
C10	420550	000756	131.00	142.00	85.00	218.00	171.11	-46.89
C10	520151	100118	201.00	216.00	313.00	376.00	208.52	-167.48
C10	520264	100577	238.00	265.00	256.00	347.00	256.15	-90.85
C10	520302	100584	165.00	242.00	198.00	340.00	227.59	-112.41
C10	520317	100612	176.00	275.00	194.00	458.00	251.26	-206.74
C10	620043	000262	233.00	88.00	86.00	206.00	169.01	-36.99
C10	620250	000035	66.00	136.00	102.00	280.00	145.94	-134.06

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C10	620286	000201	261.00	200.00	111.00	276.00	241.78	-34.22
C10	620431	000333	90.00	226.00	137.00	321.00	203.02	-117.98
C11	120035	001212	124.00	104.00	85.00	164.00	146.13	-17.87
C11	120067	001267	114.00	98.00	81.00	135.00	140.01	5.01
C11	120070	001270	335.00	126.00	106.00	269.00	219.98	-49.02
C11	120081	001284	340.00	163.00	119.00	326.00	242.16	-83.84
C11	120082	001285	191.00	186.00	145.00	303.00	208.18	-94.82
C11	120088	001294	160.00	103.00	86.00	186.00	156.18	-29.82
C11	120097	001307	138.00	123.00	86.00	179.00	161.64	-17.36
C11	120117	001327	178.00	128.00	97.00	226.00	175.28	-50.72
C11	120124	001335	137.00	102.00	89.00	170.00	148.32	-21.68
C11	120134	001347	307.00	188.00	153.00	323.00	243.14	-79.86
C11	120136	001349	281.00	113.00	99.00	252.00	196.84	-55.16
C11	120140	001353	336.00	196.00	106.00	248.00	262.44	14.44
C11	120157	001376	184.00	98.00	97.00	191.00	159.00	-32.00
C11	120206	001437	153.00	108.00	89.00	161.00	156.73	-4.27
C11	120237	001482	180.00	119.00	79.00	213.00	172.67	-40.33
C11	220039	001075	187.00	192.00	100.00	202.00	216.15	14.15
C11	220111	001239	157.00	113.00	87.00	187.00	161.19	-25.81
C11	220150	001348	134.00	137.00	119.00	283.00	164.81	-118.19
C11	220164	001367	315.00	143.00	106.00	339.00	224.23	-114.77
C11	220194	001458	245.00	174.00	121.00	268.00	220.09	-47.91
C11	220217	001569	139.00	129.00	118.00	185.00	161.61	-23.39
C11	220223	001581	268.00	168.00	108.00	277.00	224.97	-52.03
C11	220225	001578	386.00	186.00	123.00	415.00	269.30	-145.70
C11	220229	001584	183.00	141.00	128.00	219.00	180.78	-38.22
C11	220230	001585	202.00	162.00	103.00	265.00	202.20	-62.80
C11	220236	001592	215.00	157.00	112.00	246.00	201.97	-44.03
C11	220252	001609	49.00	114.00	88.00	151.00	129.32	-21.68
C11	220262	001631	117.00	151.00	773.00	199.00	87.46	-111.54
C11	220267	001646	229.00	138.00	122.00	361.00	193.49	-167.51
C11	220281	001748	503.00	498.00	499.00	325.00	445.88	120.88
C11	220382	002069	188.00	112.00	96.00	201.00	168.76	-32.24
C11	320003	100019	115.00	71.00	61.00	133.00	126.52	-6.48
C11	320006	100024	167.00	141.00	129.00	281.00	175.86	-105.14
C11	320012	100043	308.00	118.00	88.00	287.00	209.30	-77.70
C11	320053	100151	308.00	131.00	92.00	243.00	216.63	-32.37
C11	320060	100125	205.00	176.00	93.00	451.00	212.77	-238.23
C11	320112	100246	159.00	120.00	105.00	177.00	163.78	-13.22
C11	320243	100418	92.00	65.00	70.00	119.00	114.90	-4.10
C11	320247	100429	158.00	149.00	91.00	215.00	182.68	-32.32
C11	320270	100486	188.00	105.00	98.00	181.00	164.29	-16.71
C11	320333	100582	95.00	60.00	63.00	166.00	113.65	-52.35
C11	320334	100583	142.00	87.00	75.00	171.00	142.51	-28.49
C11	320434	101121	70.00	91.00	51.00	174.00	126.32	-47.68
C11	320439	101142	39.00	66.00	47.00	502.00	102.47	-399.53
C11	420123	000124	117.00	123.00	99.00	189.00	153.75	-35.25
C11	420185	000185	311.00	155.00	105.00	328.00	230.38	-97.62
C11	420207	000207	197.00	213.00	139.00	305.00	226.98	-78.02
C11	420325	000349	413.00	139.00	74.00	289.00	255.12	-33.88

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLF	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C11	420383	000479	181.00	149.00	82.00	231.00	190.67	-40.33
C11	420388	000487	309.00	161.00	86.00	310.00	235.74	-74.26
C11	420391	000490	241.00	138.00	97.00	242.00	200.17	-41.83
C11	420403	000502	165.00	134.00	95.00	213.00	175.24	-37.76
C11	420420	000519	331.00	159.00	103.00	309.00	239.03	-69.97
C11	420430	000529	473.00	142.00	99.00	353.00	271.81	-81.19
C11	420443	000564	264.00	162.00	99.00	263.00	221.26	-41.74
C11	420456	000604	422.00	167.00	109.00	349.00	270.36	-78.64
C11	420470	000619	242.00	139.00	73.00	250.00	204.03	-45.97
C11	420481	000629	180.00	123.00	71.00	292.00	176.07	-115.93
C11	520020	100544	181.00	218.00	208.00	253.00	216.69	-36.31
C11	520022	100616	343.00	281.00	274.00	411.00	295.01	-115.99
C11	520076	100291	281.00	173.00	152.00	466.00	226.44	-239.56
C11	520110	100508	304.00	260.00	168.00	418.00	283.76	-134.24
C11	520206	100510	224.00	182.00	169.00	290.00	212.70	-77.30
C11	520210	100545	188.00	239.00	255.00	301.00	225.64	-75.36
C11	520216	100526	189.00	174.00	193.00	251.00	194.43	-56.57
C11	520245	100495	562.00	369.00	261.00	1006.00	415.21	-590.79
C11	520259	100469	297.00	255.00	234.00	351.00	270.51	-80.49
C11	520262	100536	243.00	217.00	218.00	356.00	233.42	-122.58
C11	520276	100509	348.00	267.00	191.00	419.00	298.32	-120.68
C11	520300	100587	329.00	234.00	169.00	412.00	275.46	-136.54
C11	520301	100590	450.00	288.00	233.00	468.00	336.33	-131.67
C11	620022	000010	250.00	113.00	101.00	240.00	187.31	-52.69
C11	620026	000005	136.00	76.00	67.00	164.00	135.08	-28.92
C11	620029	000009	206.00	121.00	89.00	203.00	180.43	-22.57
C11	620039	000104	365.00	256.00	196.00	395.00	296.17	-98.83
C11	620040	000098	367.00	96.00	97.00	317.00	212.60	-104.40
C11	620044	000149	165.00	112.00	97.00	193.00	161.75	-31.25
C11	620045	000229	227.00	118.00	108.00	230.00	182.57	-47.43
C11	620046	000196	272.00	139.00	130.00	317.00	205.98	-111.02
C11	620047	000200	178.00	197.00	124.00	257.00	210.50	-46.50
C11	620049	000216	193.00	129.00	96.00	218.00	180.49	-37.51
C11	620050	000244	266.00	164.00	112.00	177.00	221.46	44.46
C11	620051	000231	336.00	132.00	127.00	317.00	221.30	-95.70
C11	620053	000133	228.00	106.00	100.00	387.00	176.63	-210.37
C11	620284	000079	99.00	93.00	75.00	215.00	133.25	-81.75
C11	620285	000255	126.00	107.00	91.00	213.00	147.79	-65.21
C11	620287	000233	87.00	112.00	85.00	323.00	139.87	-183.13
C11	620312	000228	241.00	102.00	121.00	251.00	175.52	-75.48
C11	620435	000348	230.00	161.00	113.00	226.00	208.75	-17.25
C11	620439	000343	272.00	173.00	135.00	262.00	225.85	-36.15
C11	620441	000342	565.00	180.00	119.00	391.00	319.78	-71.22
C11	620444	000341	208.00	184.00	134.00	325.00	213.43	-111.57
C12	120006	001144	130.00	148.00	146.00	167.00	166.90	-0.10
C12	120012	001161	103.00	155.00	119.00	166.00	166.36	0.36
C12	120013	001165	124.00	170.00	91.00	168.00	185.14	17.14
C12	120014	001162	122.00	134.00	98.00	159.00	162.00	3.00
C12	120015	001168	135.00	141.00	83.00	187.00	171.96	-15.04
C12	120104	001314	68.00	186.00	129.00	161.00	173.32	12.32

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	120110	001320	107.00	122.00	130.00	156.00	146.93	-9.07
C12	120111	001321	258.00	138.00	88.00	189.00	206.37	17.37
C12	120112	001322	120.00	177.00	137.00	178.00	182.49	4.49
C12	120115	001325	126.00	112.00	70.00	149.00	153.40	4.40
C12	120128	001339	323.00	162.00	109.00	212.00	237.70	25.70
C12	120158	001377	132.00	201.00	130.00	191.00	201.40	10.40
C12	120179	001403	291.00	157.00	120.00	248.00	223.75	-24.25
C12	120200	001423	120.00	157.00	97.00	171.00	175.37	4.37
C12	120238	001492	133.00	141.00	102.00	147.00	169.01	22.01
C12	120286	001624	135.00	148.00	111.00	172.00	172.72	0.72
C12	120301	001660	278.00	176.00	154.00	223.00	227.11	4.11
C12	120310	001673	311.00	158.00	109.00	241.00	231.70	-9.30
C12	120320	001684	254.00	226.00	156.00	242.00	249.79	7.79
C12	120328	001692	186.00	135.00	103.00	177.00	181.15	4.15
C12	120329	001693	171.00	142.00	92.00	172.00	182.23	10.23
C12	220009	000933	164.00	131.00	97.00	215.00	172.89	-42.11
C12	220011	000935	248.00	104.00	87.00	236.00	183.02	-52.98
C12	220024	001022	95.00	115.00	121.00	151.00	139.63	-11.37
C12	220027	001055	217.00	138.00	119.00	212.00	190.27	-21.73
C12	220040	001082	129.00	117.00	112.00	155.00	152.12	-2.88
C12	220093	001208	86.00	153.00	159.00	216.00	158.75	-57.25
C12	220101	001216	267.00	163.00	120.00	186.00	220.17	34.17
C12	220102	001217	151.00	157.00	139.00	209.00	179.48	-29.52
C12	220109	001233	182.00	165.00	99.00	211.00	198.51	-12.49
C12	220151	001349	165.00	113.00	94.00	180.00	162.72	-17.28
C12	220154	001353	283.00	246.00	154.00	277.00	270.77	-6.23
C12	220162	001363	478.00	201.00	156.00	251.00	301.81	50.81
C12	220170	001385	241.00	184.00	150.00	233.00	221.34	-11.66
C12	220176	001399	132.00	119.00	112.00	151.00	154.23	3.23
C12	220185	001430	131.00	113.00	111.00	134.00	150.44	16.44
C12	220201	001495	266.00	185.00	154.00	184.00	228.93	44.93
C12	220202	001504	152.00	132.00	132.00	213.00	165.58	-47.42
C12	220203	001511	126.00	147.00	137.00	192.00	166.21	-25.79
C12	220216	001564	56.00	152.00	130.00	166.00	149.12	-16.88
C12	220222	001575	116.00	186.00	134.00	170.00	187.08	17.08
C12	320092	100167	133.00	138.00	98.00	153.00	167.70	14.70
C12	320121	100801	128.00	142.00	117.00	179.00	166.27	-12.73
C12	320135	100276	74.00	132.00	97.00	151.00	146.54	-4.46
C12	320136	100285	59.00	109.00	97.00	154.00	128.19	-25.81
C12	320137	100303	58.00	95.00	88.00	145.00	120.57	-24.43
C12	320138	100319	57.00	97.00	90.00	130.00	121.23	-8.77
C12	320139	100338	105.00	64.00	67.00	119.00	118.56	-0.44
C12	320140	100345	113.00	132.00	111.00	161.00	156.49	-4.51
C12	320141	100363	94.00	96.00	88.00	129.00	131.95	2.95
C12	320142	100380	100.00	128.00	115.00	168.00	149.70	-18.30
C12	320211	101365	120.00	163.00	139.00	165.00	173.81	8.81
C12	320246	100414	70.00	115.00	72.00	151.00	138.19	-12.81
C12	320261	100769	82.00	136.00	113.00	155.00	149.37	-5.63
C12	320285	101265	224.00	129.00	83.00	215.00	191.38	-23.62
C12	320340	101238	146.00	151.00	91.00	158.00	180.29	22.29

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	320395	100795	242.00	149.00	110.00	213.00	205.49	-7.51
C12	320419	101364	105.00	150.00	80.00	176.00	168.76	-7.24
C12	320485	101724	71.00	110.00	73.00	329.00	135.35	-193.65
C12	320497	105119	204.00	163.00	113.00	341.00	202.17	-138.83
C12	320503	104127	53.00	57.00	45.00	185.00	101.49	-83.51
C12	320504	104129	158.00	138.00	97.00	184.00	175.31	-8.69
C12	420018	000028	94.00	171.00	91.00	143.00	176.76	33.76
C12	420019	000023	86.00	146.00	111.00	175.00	156.84	-18.16
C12	420022	000020	175.00	131.00	99.00	161.00	175.94	14.94
C12	420025	000035	161.00	192.00	104.00	185.00	208.47	23.47
C12	420053	000054	235.00	212.00	102.00	224.00	242.33	18.33
C12	420105	000106	141.00	157.00	110.00	202.00	180.06	-21.94
C12	420119	000120	128.00	148.00	97.00	147.00	172.35	25.35
C12	420126	000126	146.00	186.00	120.00	221.00	197.79	-23.21
C12	420158	000158	115.00	169.00	90.00	177.00	181.97	4.97
C12	420259	000259	128.00	131.00	85.00	286.00	163.59	-122.41
C12	420385	000482	237.00	166.00	139.00	325.00	210.65	-114.35
C12	420409	000508	191.00	189.00	58.00	213.00	220.72	7.72
C12	420424	000523	151.00	142.00	97.00	171.00	175.62	4.62
C12	420429	000528	337.00	237.00	156.00	347.00	281.27	-65.73
C12	420439	000560	125.00	123.00	75.00	169.00	159.11	-9.89
C12	420441	000562	285.00	135.00	59.00	210.00	216.23	6.23
C12	420471	000620	375.00	164.00	95.00	306.00	256.21	-49.79
C12	420477	000625	212.00	176.00	110.00	237.00	212.77	-19.23
C12	420479	000627	189.00	151.00	95.00	194.00	192.67	-1.33
C12	420484	000632	77.00	94.00	58.00	96.00	129.36	33.36
C12	420485	000633	133.00	154.00	88.00	166.00	178.57	12.57
C12	420507	000665	165.00	163.00	101.00	175.00	191.97	16.97
C12	520016	100130	379.00	208.00	188.00	393.00	272.43	-120.57
C12	520017	100534	170.00	192.00	171.00	194.00	202.30	8.30
C12	520066	100044	115.00	244.00	174.00	280.00	216.78	-63.22
C12	520082	100535	414.00	276.00	196.00	350.00	322.89	-27.11
C12	520098	100547	288.00	268.00	199.00	335.00	281.07	-53.93
C12	520100	100429	433.00	247.00	150.00	565.00	319.79	-245.21
C12	520104	100220	230.00	206.00	149.00	344.00	231.42	-112.58
C12	520114	100468	247.00	119.00	149.00	242.00	184.10	-57.90
C12	520118	100049	250.00	217.00	162.00	323.00	242.43	-80.57
C12	520126	100065	208.00	256.00	183.00	246.00	250.75	4.75
C12	520140	100528	173.00	163.00	151.00	240.00	188.20	-51.80
C12	520157	100478	281.00	284.00	227.00	315.00	284.05	-30.95
C12	520161	100540	205.00	182.00	143.00	210.00	210.21	0.21
C12	520204	100438	314.00	25'.00	201.00	310.00	279.67	-30.33
C12	520248	100470	157.00	201.00	165.00	196.00	204.57	8.57
C12	520252	100505	316.00	208.00	203.00	309.00	251.72	-57.28
C12	520258	100386	284.00	276.00	247.00	343.00	277.66	-65.34
C12	520267	100527	165.00	176.00	149.00	189.00	193.88	4.88
C12	520272	100551	232.00	201.00	182.00	291.00	224.93	-66.07
C12	520360	100696	404.00	326.00	243.00	366.00	344.21	-21.79
C12	620020	000024	196.00	187.00	121.00	286.00	210.23	-75.77
C12	620030	000007	183.00	238.00	139.00	258.00	237.85	-20.15

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	620037	000084	287.00	155.00	146.00	264.00	218.14	-45.86
C12	620038	000082	114.00	140.00	74.00	176.00	166.17	-9.83
C12	620042	000063	176.00	130.00	74.00	173.00	178.72	5.72
C12	620054	000215	173.00	128.00	95.00	167.00	174.03	7.03
C12	620055	000214	211.00	141.00	148.00	192.00	187.90	-4.10
C12	620056	000212	169.00	166.00	130.00	362.00	191.40	-170.60
C12	620058	000297	319.00	259.00	159.00	272.00	288.76	16.76
C12	620059	000318	138.00	137.00	125.00	151.00	165.26	14.26
C12	620060	000242	136.00	126.00	74.00	195.00	164.33	-30.67
C12	620061	000239	152.00	202.00	81.00	211.00	214.04	3.04
C12	620196	000213	203.00	114.00	139.00	472.00	169.15	-302.85
C12	620202	000227	215.00	96.00	61.00	142.00	171.52	29.52
C12	620222	000235	135.00	222.00	180.00	212.00	208.78	-3.22
C12	620259	000101	380.00	179.00	164.00	288.00	258.23	-29.77
C12	620320	000315	322.00	181.00	160.00	232.00	242.55	10.55
C12	620380	000327	885.00	257.00	160.00	208.00	456.94	248.94
C12	620425	000314	214.00	182.00	186.00	217.00	207.60	-9.40
C12	620426	000321	237.00	131.00	106.00	170.00	193.64	23.64
C13	120005	001140	100.00	82.00	37.00	154.00	131.36	-22.64
C13	120007	001151	110.00	114.00	119.00	182.00	143.76	-38.24
C13	120011	001160	272.00	108.00	128.00	222.00	187.56	-34.44
C13	120170	001390	193.00	110.00	132.00	241.00	164.61	-76.39
C13	120176	001400	163.00	79.00	108.00	182.00	139.91	-42.09
C13	120180	001404	223.00	34.00	47.00	130.00	140.10	10.10
C13	120216	001454	152.00	81.00	122.00	172.00	136.09	-35.91
C13	120247	001532	213.00	129.00	156.00	208.00	179.08	-28.92
C13	120248	001542	237.00	76.00	85.00	235.00	163.10	-71.90
C13	120253	001553	197.00	92.00	106.00	210.00	158.17	-51.83
C13	120293	001640	193.00	134.00	127.00	229.00	179.68	-49.32
C13	120315	001679	244.00	130.00	149.00	270.00	189.83	-80.17
C13	220007	000928	412.00	212.00	162.00	334.00	287.93	-46.07
C13	220012	000936	89.00	98.00	106.00	154.00	129.44	-24.56
C13	220013	000937	157.00	93.00	76.00	199.00	150.50	-48.50
C13	220016	000940	792.00	111.00	88.00	452.00	350.03	-101.97
C13	220017	000941	1823.00	201.00	178.00	1041.00	701.91	-339.09
C13	220098	001213	286.00	219.00	131.00	281.00	258.24	-22.76
C13	220113	001243	108.00	108.00	102.00	147.00	141.65	-5.35
C13	220156	001357	204.00	83.00	86.00	228.00	157.31	-70.69
C13	220186	001431	175.00	131.00	130.00	196.00	172.11	-23.89
C13	220213	001560	239.00	155.00	119.00	225.00	207.09	-17.91
C13	320122	100243	170.00	199.00	90.00	211.00	216.51	5.51
C13	320148	100262	153.00	110.00	98.00	198.00	156.82	-41.18
C13	320227	100401	196.00	71.00	80.00	212.00	148.43	-63.57
C13	320242	100417	229.00	190.00	146.00	306.00	221.85	-84.15
C13	320292	101338	44.00	81.00	91.00	174.00	107.57	-66.43
C13	320381	100823	114.00	121.00	141.00	175.00	146.46	-28.54
C13	320385	100915	235.00	100.00	67.00	199.00	179.18	-19.82
C13	320399	101363	121.00	93.00	83.00	209.00	138.85	-70.15
C13	320404	101345	75.00	101.00	64.00	147.00	132.24	-14.76
C13	320407	101464	82.00	97.00	68.00	159.00	131.43	-27.57

HYDROCARBONS

PEG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
C13	420069	000069	242.00	154.00	89.00	276.00	211.09	-64.91
C13	420165	000165	149.00	113.00	121.00	238.00	154.59	-83.41
C13	420230	000230	152.00	152.00	132.00	238.00	177.63	-60.37
C13	420278	000283	143.00	107.00	94.00	223.00	152.51	-70.49
C13	420280	000287	163.00	97.00	96.00	314.00	152.23	-161.77
C13	420306	000325	174.00	107.00	125.00	208.00	157.97	-50.03
C13	420339	000385	242.00	263.00	208.00	387.00	262.07	-124.93
C13	420395	000494	197.00	139.00	92.00	253.00	188.21	-64.79
C13	420399	000498	170.00	127.00	83.00	204.00	174.00	-30.00
C13	420404	000503	575.00	181.00	106.00	472.00	324.99	-147.01
C13	420433	000532	127.00	88.00	96.00	165.00	136.03	-28.97
C13	420451	000574	237.00	173.00	58.00	252.00	224.86	-27.14
C13	520004	100131	169.00	238.00	168.00	324.00	230.08	-93.92
C13	520091	100025	246.00	121.00	274.00	276.00	175.76	-100.24
C13	520132	100161	235.00	192.00	178.00	468.00	220.90	-247.10
C13	520181	100292	120.00	149.00	156.00	294.00	163.28	-130.72
C13	520190	100257	192.00	143.00	123.00	373.00	185.30	-187.70
C13	520218	100471	278.00	223.00	179.00	299.00	252.33	-46.67
C13	520250	100419	215.00	227.00	155.00	342.00	238.83	-103.17
C13	520255	100500	233.00	182.00	101.00	251.00	223.78	-27.22
C13	520285	100546	203.00	147.00	121.00	355.00	191.25	-163.75
C13	520307	100597	242.00	209.00	264.00	272.00	222.03	-49.97
C13	620007	000023	776.00	79.00	87.00	522.00	326.09	-195.91
C13	620019	000004	194.00	89.00	84.00	267.00	159.38	-107.62
C13	620041	000089	248.00	95.00	74.00	288.00	179.20	-108.80
C13	620063	000217	75.00	136.00	164.00	206.00	140.98	-64.02
C13	620065	000256	219.00	106.00	87.00	301.00	175.54	-125.46
C13	620066	000267	242.00	79.00	107.00	250.00	163.69	-86.31
C13	620067	000160	426.00	89.00	98.00	357.00	225.93	-131.07
C13	620068	000219	178.00	84.00	97.00	219.00	148.77	-70.23
C13	620195	000253	190.00	105.00	145.00	191.00	159.09	-31.91
C13	620201	000240	325.00	109.00	118.00	286.00	205.26	-80.74
C13	620384	000290	173.00	87.00	124.00	212.00	142.74	-69.26
C13	620421	000285	291.00	107.00	112.00	249.00	194.62	-54.38
C14	120244	001521	119.00	132.00	122.00	127.00	156.93	29.93
C14	120269	001577	172.00	107.00	115.00	213.00	158.61	-54.39
C14	120426	001771	201.00	160.00	157.00	235.00	194.04	-40.96
C14	220312	000815	117.00	119.00	116.00	173.00	149.24	-23.76
C14	220349	000850	270.00	163.00	167.00	286.00	215.28	-70.72
C14	320023	100059	226.00	117.00	112.00	244.00	181.17	-62.83
C14	320040	100130	126.00	102.00	103.00	152.00	143.30	-8.70
C14	320368	100667	128.00	113.00	114.00	140.00	149.17	9.17
C14	420452	000575	366.00	181.00	132.00	356.00	259.19	-96.81
C14	420500	000658	177.00	138.00	114.00	226.00	178.90	-47.10
C14	520002	100045	167.00	183.00	135.00	285.00	200.42	-84.58
C14	520003	100109	233.00	216.00	161.00	311.00	236.86	-74.14
C14	520071	100015	355.00	282.00	208.00	392.00	307.35	-84.65
C14	520265	100570	303.00	239.00	188.00	361.00	268.35	-92.65
C14	620071	000220	422.00	199.00	182.00	343.00	280.63	-62.37
C14	620072	000248	173.00	135.00	105.00	173.00	177.01	4.01

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C15	120235	001477	265.00	227.00	244.00	287.00	242.83	-44.17
C15	220251	001608	333.00	408.00	437.00	427.00	348.41	-78.59
C15	320383	100865	130.00	135.00	142.00	263.00	159.57	-103.43
C15	420155	000155	134.00	207.00	192.00	240.00	197.96	-42.04
C15	420480	000628	251.00	207.00	171.00	258.00	235.59	-22.41
C15	520141	100272	307.00	240.00	195.00	350.00	269.28	-80.72
C15	520329	100632	1813.00	395.00	401.00	934.00	788.26	-145.74
C15	620062	000106	305.00	179.00	210.00	238.00	230.09	-7.91
C17	120137	001350	316.00	233.00	206.00	324.00	266.40	-57.60
C17	120223	001461	337.00	177.00	120.00	295.00	249.57	-45.43
C17	220010	000934	847.00	164.00	140.00	371.00	392.01	21.01
C17	220121	001273	239.00	174.00	166.00	249.00	212.74	-36.26
C17	320201	100387	146.00	132.00	119.00	232.00	165.39	-66.61
C17	320245	100416	187.00	121.00	129.00	214.00	169.81	-44.19
C17	420427	000526	215.00	168.00	151.00	255.00	203.54	-51.46
C17	420578	000837	175.00	85.00	88.00	237.00	149.59	-87.41
C17	620070	000071	280.00	110.00	110.00	396.00	193.38	-202.62
C17	620365	000163	396.00	234.00	194.00	278.00	292.45	14.45
C18	120438	001813	891.00	192.00	177.00	768.00	417.49	-350.51
C18	220263	001653	402.00	188.00	134.00	294.00	273.94	-20.06
C18	220326	001862	190.00	148.00	126.00	191.00	187.34	-3.66
C18	320048	100640	104.00	105.00	113.00	211.00	137.29	-73.71
C18	320244	100415	243.00	168.00	71.00	166.00	222.04	56.04
C18	520125	100530	379.00	284.00	175.00	410.00	319.82	-90.18
C18	520183	100439	343.00	234.00	200.00	306.00	275.83	-30.17
C18	520188	100250	231.00	142.00	120.00	246.00	196.74	-49.26
C18	520214	100475	155.00	234.00	160.00	287.00	224.46	-62.54
C18	520263	100481	208.00	295.00	188.00	401.00	273.63	-127.37
C18	620415	000185	363.00	59.00	66.00	316.00	192.94	-123.06
C19	120422	001761	290.00	110.00	125.00	310.00	194.52	-115.48
C19	220008	000929	200.00	146.00	179.00	283.00	188.76	-94.24
C19	220266	001645	514.00	198.00	188.00	312.00	306.84	-5.16
C19	320018	100053	46.00	62.00	86.00	90.00	97.35	7.35
C19	320436	101174	124.00	62.00	121.00	183.00	116.39	-66.61
C19	320447	101198	158.00	69.00	122.00	220.00	130.66	-89.34
C19	420431	000530	401.00	191.00	126.00	293.00	276.43	-16.57
C19	420486	000587	428.00	215.00	185.00	366.00	293.50	-72.50
C19	620021	000087	526.00	75.00	147.00	293.00	241.40	-51.60
C19	620073	000080	156.00	93.00	134.00	202.00	143.04	-58.96
C19	620211	000187	159.00	135.00	127.00	367.00	170.10	-196.90
C20	520320	100624	728.00	287.00	158.00	583.00	428.24	-154.76
C20	520325	100621	92.00	162.00	2802.00	3327.00	-163.71	-3490.71
F30	120026	001196	183.00	292.00	264.00	356.00	254.96	-101.04
F30	120409	001798	374.00	242.00	182.00	385.00	292.16	-92.84
F30	120435	001721	209.00	162.00	204.00	402.00	191.84	-210.16
F30	120436	001804	79.00	140.00	130.00	184.00	148.78	-35.22
F30	220087	001201	156.00	196.00	165.00	247.00	201.26	-45.74
F30	220257	001622	111.00	336.00	210.00	388.00	266.56	-121.44
F30	220294	001788	81.00	224.00	289.00	300.00	180.36	-119.64
F30	220296	000843	64.00	358.00	296.00	305.00	255.12	-49.88

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F30	220306	001901	173.00	210.00	248.00	286.00	204.54	-81.46
F30	220353	001876	203.00	262.00	310.00	372.00	237.20	-134.80
F30	320062	100347	60.00	239.00	255.00	275.00	187.31	-87.69
F30	320349	100617	172.00	237.00	256.00	355.00	219.52	-135.48
F30	320377	100950	248.00	185.00	161.00	240.00	222.68	-17.32
F30	320386	100800	47.00	187.00	165.00	220.00	163.19	-56.81
F30	320388	100825	250.00	260.00	166.00	412.00	267.84	-144.16
F30	420051	000050	181.00	246.00	305.00	382.00	221.59	-160.41
F30	420084	000089	286.00	283.00	177.00	304.00	291.11	-12.89
F30	420145	000145	544.00	246.00	247.00	694.00	337.46	-356.54
F30	420412	000511	224.00	194.00	152.00	255.00	222.02	-32.98
F30	420503	000661	220.00	255.00	275.00	393.00	242.39	-150.61
F30	520005	100232	834.00	350.00	315.00	685.00	478.57	-206.43
F30	520260	100506	457.00	427.00	309.00	580.00	412.78	-167.22
F30	520270	100474	184.00	314.00	347.00	464.00	258.27	-205.73
F30	520293	100588	244.00	318.00	324.00	444.00	281.48	-162.52
F30	520305	100589	115.00	324.00	330.00	473.00	245.72	-227.28
F30	620300	000175	411.00	305.00	329.00	387.00	323.05	-63.95
F30	620327	000057	169.00	127.00	63.00	223.00	176.17	-46.83
F30	620333	000075	200.00	315.00	258.00	428.00	274.64	-153.36
F30	620367	000153	190.00	345.00	272.00	317.00	287.99	-29.01
F30	620434	000332	63.00	126.00	154.00	274.00	132.60	-141.40
F30	620437	000338	394.00	275.00	238.00	556.00	311.11	-244.89
F31	120129	001340	158.00	224.00	180.00	228.00	216.87	-11.13
F31	120252	001552	179.00	190.00	153.00	300.00	206.01	-93.99
F31	320378	100765	185.00	204.00	145.00	233.00	217.23	-15.77
F31	620009	000014	153.00	200.00	103.00	261.00	210.42	-50.58
F32	120132	001344	118.00	168.00	125.00	171.00	177.95	6.95
F32	120159	001382	538.00	197.00	150.00	398.00	318.11	-79.89
F32	120181	001405	313.00	215.00	152.00	288.00	261.33	-26.67
F32	120191	001414	208.00	171.00	123.00	203.00	206.95	3.95
F32	120220	001431	239.00	195.00	153.00	272.00	226.99	4.99
F32	120250	001550	173.00	221.00	179.00	305.00	219.68	-85.32
F32	120267	001575	165.00	173.00	182.00	236.00	188.00	-48.00
F32	220031	001061	47.00	168.00	224.00	260.00	144.47	-115.53
F32	220114	001746	160.00	228.00	183.00	248.00	219.51	-28.49
F32	220117	001257	646.00	237.00	201.00	356.00	365.25	9.25
F32	220140	001330	241.00	178.00	110.00	278.00	222.66	-55.34
F32	220161	001362	208.00	206.00	180.00	272.00	221.00	-51.00
F32	220211	001558	369.00	293.00	230.00	437.00	315.46	-121.54
F32	320026	100068	389.00	170.00	174.00	305.00	254.27	-50.73
F32	320096	100169	173.00	244.00	223.00	382.00	228.11	-153.89
F32	320115	100216	151.00	164.00	135.00	167.00	184.79	17.79
F32	320225	100430	210.00	194.00	183.00	268.00	214.00	-54.00
F32	320229	100442	168.00	202.00	174.00	225.00	207.36	-17.64
F32	320268	100602	120.00	149.00	180.00	272.00	160.32	-111.68
F32	320325	100616	121.00	177.00	199.00	239.00	175.14	-63.86
F32	320394	101070	261.00	176.00	95.00	233.00	229.29	-3.71
F32	420003	000003	181.00	208.00	146.00	211.00	218.32	7.32
F32	420048	000051	219.00	223.00	159.00	266.00	237.13	-28.87

HYDROCARBONS

			KEYMODE VALUE			COMPOSITE VALUES		
MFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F32	420095	000092	213.00	187.00	135.00	296.00	216.61	-79.39
F32	420101	000102	140.00	191.00	162.00	218.00	193.82	-24.18
F32	420182	000182	105.00	217.00	220.00	242.00	191.85	-50.15
F32	420340	000387	189.00	264.00	176.00	287.00	250.74	-36.26
F32	420341	000388	285.00	205.00	184.00	325.00	242.97	-82.03
F32	420440	000561	86.00	219.00	166.00	260.00	194.02	-65.98
F32	520018	100261	323.00	363.00	248.00	359.00	341.62	-17.38
F32	520083	100155	129.00	307.00	291.00	328.00	244.49	-83.51
F32	520101	100139	247.00	260.00	228.00	306.00	259.29	-46.71
F32	520107	100067	241.00	507.00	297.00	483.00	397.76	-85.24
F32	520174	100218	259.00	304.00	204.00	440.00	292.35	-147.65
F32	520240	100504	314.00	334.00	279.00	371.00	317.64	-53.36
F32	520256	100388	235.00	263.00	245.00	365.00	255.41	-109.59
F32	520266	100507	169.00	277.00	253.00	330.00	243.08	-86.92
F32	620080	000117	235.00	201.00	173.00	259.00	226.94	-32.06
F32	620082	000156	128.00	191.00	154.00	212.00	191.22	-20.78
F32	620083	000123	488.00	239.00	188.00	383.00	323.75	-59.25
F32	620084	000157	172.00	196.00	168.00	213.00	205.68	-7.32
F32	620085	000094	43.00	186.00	176.00	218.00	160.04	-57.96
F32	620203	000095	133.00	160.00	161.00	214.00	173.18	-40.82
F32	620442	000345	253.00	205.00	141.00	190.00	238.69	48.69
F33	120017	001163	136.00	122.00	155.00	160.00	151.93	-8.07
F33	120019	001164	185.00	166.00	170.00	216.00	191.26	-24.74
F33	120047	001239	255.00	258.00	219.00	257.00	261.59	4.59
F33	120091	001297	147.00	211.00	190.00	215.00	204.51	-10.49
F33	120093	001300	210.00	188.00	232.00	163.00	204.35	41.35
F33	120114	001324	276.00	290.00	259.00	288.00	282.22	-5.78
F33	120148	001363	322.00	204.00	179.00	256.00	254.06	-1.94
F33	120165	001385	143.00	93.00	178.00	137.00	139.89	2.89
F33	120168	001388	122.00	215.00	238.00	157.00	193.51	36.51
F33	120172	001396	87.00	129.00	144.00	228.00	142.83	-85.17
F33	120177	001401	287.00	255.00	231.00	275.00	267.89	-7.11
F33	120183	001407	127.00	169.00	142.00	206.00	179.15	-26.85
F33	120185	001409	171.00	59.00	83.00	179.00	133.34	-45.66
F33	120186	001372	182.00	86.00	162.00	160.00	143.16	-16.84
F33	120202	001425	154.00	237.00	218.00	177.00	218.82	41.82
F33	120277	001591	138.00	117.00	147.00	239.00	150.50	-88.50
F33	120283	001607	292.00	134.00	192.00	218.00	201.31	-16.69
F33	220004	000932	77.00	148.00	186.00	182.00	146.10	-35.90
F33	220005	000930	196.00	147.00	185.00	190.00	181.25	-8.75
F33	220054	001096	152.00	239.00	254.00	200.00	224.55	24.55
F33	220115	001247	103.00	198.00	183.00	278.00	364.06	86.06
F33	220142	001332	124.00	212.00	244.00	158.00	191.57	33.57
F33	220148	001342	144.00	197.00	184.00	177.00	195.92	18.92
F33	220168	001378	266.00	174.00	232.00	272.00	212.68	-59.32
F33	220192	001452	173.00	182.00	215.00	242.00	191.75	-50.25
F33	220221	001573	134.00	185.00	214.00	211.00	182.00	-29.00
F33	220228	001583	153.00	192.00	244.00	373.00	188.20	-184.80
F33	220235	001591	218.00	233.00	229.00	315.00	234.22	-80.78
F33	220249	001606	179.00	123.00	170.00	246.00	163.56	-82.44

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F33	220269	001655	444.00	268.00	248.00	327.00	320.64	-6.36
F33	220289	001791	118.00	199.00	223.00	230.00	184.53	-45.47
F33	220316	000825	177.00	192.00	259.00	323.00	193.54	-129.46
F33	320027	100687	202.00	242.00	214.00	166.00	236.70	70.70
F33	320044	100111	248.00	208.00	189.00	175.00	233.08	58.08
F33	320082	100346	250.00	58.00	73.00	128.00	157.64	29.64
F33	320125	100242	99.00	23.00	43.00	74.00	95.03	21.03
F33	320149	100278	106.00	134.00	175.00	164.00	147.70	-16.30
F33	320159	100290	84.00	108.00	140.00	165.00	129.77	-35.23
F33	320160	100289	124.00	177.00	173.00	198.00	179.24	-18.76
F33	320167	100361	143.00	210.00	219.00	351.00	199.14	-151.86
F33	320214	100546	1.00	3.00	12.00	2159.00	57.46	-2101.54
F33	320275	100469	332.00	178.00	184.00	243.00	240.78	-2.22
F33	320284	100505	87.00	105.00	159.00	158.00	126.52	-31.48
F33	320371	100109	100.00	144.00	193.00	166.00	149.71	-16.29
F33	320379	100793	166.00	205.00	209.00	144.00	204.25	60.25
F33	320396	100792	131.00	92.00	123.00	164.00	136.31	-27.69
F33	320397	100797	280.00	197.00	249.00	252.00	228.63	-23.37
F33	420037	000031	166.00	189.00	230.00	234.00	192.02	-41.98
F33	420040	000036	276.00	160.00	144.00	217.00	218.10	1.10
F33	420041	000039	136.00	154.00	154.00	185.00	171.33	-13.67
F33	420079	000079	225.00	200.00	176.00	243.00	222.97	-20.03
F33	420080	000080	162.00	222.00	258.00	241.00	207.24	-33.76
F33	420092	000097	156.00	81.00	119.00	135.00	137.66	2.66
F33	420111	000112	156.00	183.00	213.00	241.00	187.51	-53.49
F33	420124	000125	145.00	208.00	212.00	156.00	199.39	43.39
F33	420137	000136	442.00	241.00	192.00	329.00	310.69	-18.31
F33	420139	000139	168.00	196.00	246.00	241.00	194.86	-46.14
F33	420140	000140	206.00	177.00	239.00	220.00	195.66	-24.34
F33	420192	000192	246.00	124.00	167.00	176.00	184.60	8.60
F33	420206	000206	272.00	152.00	127.00	228.00	214.18	-13.82
F33	420324	000348	196.00	217.00	197.00	212.00	221.94	9.94
F33	420486	000634	106.00	156.00	172.00	311.00	161.33	-149.67
F33	520019	100056	323.00	272.00	228.00	262.00	289.28	27.28
F33	520021	100138	225.00	173.00	137.00	246.00	211.52	-34.48
F33	520044	100501	196.00	270.00	255.00	333.00	246.71	-86.29
F33	520112	100572	234.00	184.00	232.00	399.00	200.14	-198.86
F33	520166	100176	342.00	326.00	296.00	540.00	319.11	-220.89
F33	520175	100271	217.00	373.00	248.00	251.00	315.90	64.90
F33	520176	100493	246.00	269.00	270.00	569.00	259.23	-309.77
F33	520177	100228	389.00	354.00	268.00	536.00	353.50	-182.50
F33	520221	100334	142.00	176.00	194.00	245.00	181.44	-63.56
F33	520227	100491	287.00	329.00	304.00	412.00	303.45	-108.55
F33	520229	100293	250.00	217.00	244.00	268.00	229.30	-38.70
F33	520241	100442	120.00	297.00	166.00	336.00	251.19	-84.81
F33	520253	100549	223.00	295.00	241.00	266.00	271.58	5.58
F33	520289	100606	217.00	243.00	234.00	326.00	239.32	-86.68
F33	520311	100599	168.00	226.00	218.00	282.00	216.38	-65.62
F33	620016	000015	185.00	210.00	200.00	277.00	214.06	-62.94
F33	620018	000019	331.00	257.00	272.00	204.00	277.21	73.21

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F33	620090	000150	131.00	135.00	208.00	230.00	151.72	-78.28
F33	620091	000246	279.00	226.00	238.00	321.00	247.16	-73.84
F33	620095	000329	226.00	246.00	206.00	192.00	247.28	55.28
F33	620218	000105	208.00	219.00	258.00	376.00	219.21	-156.79
F33	620225	000232	206.00	234.00	222.00	177.00	232.09	55.09
F33	620231	000064	173.00	184.00	171.00	142.00	198.38	56.38
F33	620246	000191	500.00	174.00	152.00	489.00	292.63	-196.37
F33	620256	000226	165.00	134.00	107.00	271.00	173.76	-97.24
F33	620258	000183	315.00	175.00	251.00	311.00	225.62	-85.38
F33	620265	000182	165.00	160.00	246.00	256.00	172.28	-83.72
F33	620297	000108	371.00	146.00	203.00	607.00	230.84	-376.16
F33	620363	000203	223.00	158.00	232.00	260.00	190.17	-69.83
F33	620392	000330	185.00	205.00	177.00	257.00	213.88	-43.12
F33	620393	000286	143.00	138.00	219.00	189.00	155.77	-33.23
F33	620424	000304	281.00	215.00	214.00	150.00	244.09	94.09
F34	120033	001206	223.00	150.00	84.00	217.00	203.61	-13.39
F34	120079	001282	158.00	159.00	62.00	201.00	192.28	-8.72
F34	120086	001290	116.00	163.00	88.00	180.00	178.90	-1.10
F34	120147	001360	158.00	192.00	175.00	204.00	198.21	-5.79
F34	120155	001374	66.00	183.00	113.00	211.00	172.89	-38.11
F34	120196	001419	203.00	106.00	87.00	211.00	170.75	-40.25
F34	120204	001427	208.00	318.00	213.00	293.00	284.40	-8.60
F34	120218	001456	260.00	310.00	204.00	318.00	296.26	-21.74
F34	120224	001462	79.00	238.00	170.00	219.00	202.88	-16.12
F34	120226	001465	141.00	160.00	168.00	215.00	174.71	-40.29
F34	120233	001474	73.00	223.00	156.00	234.00	193.77	-40.23
F34	120263	001569	84.00	260.00	130.00	216.00	222.56	6.56
F34	120268	001576	260.00	182.00	117.00	279.00	229.89	-49.11
F34	120270	001578	134.00	171.00	102.00	234.00	187.38	-46.62
F34	120271	001579	271.00	167.00	91.00	260.00	227.36	-32.64
F34	120272	001580	106.00	193.00	166.00	229.00	184.35	-44.65
F34	120279	001598	171.00	198.00	184.00	237.00	204.61	-32.39
F34	120282	001606	247.00	173.00	119.00	246.00	218.83	-27.17
F34	120297	001656	102.00	164.00	92.00	173.00	174.82	1.82
F34	120300	001659	99.00	187.00	126.00	195.00	183.58	-11.42
F34	220002	000926	578.00	151.00	114.00	253.00	306.83	53.83
F34	220110	001234	281.00	210.00	113.00	378.00	253.54	-124.46
F34	220120	001269	88.00	162.00	143.00	315.00	163.13	-151.87
F34	220127	001306	230.00	135.00	128.00	206.00	191.24	-14.76
F34	220147	001340	211.00	257.00	193.00	439.00	251.02	-187.98
F34	220167	001376	129.00	117.00	121.00	190.00	151.01	-38.99
F34	220171	001386	144.00	213.00	163.00	202.00	208.15	6.15
F34	220226	001579	822.00	142.00	154.00	174.00	369.55	195.55
F34	220238	001595	85.00	197.00	161.00	193.00	181.09	-11.91
F34	220241	001598	291.00	189.00	125.00	301.00	242.41	-58.59
F34	220243	001600	126.00	142.00	71.00	182.00	171.34	-10.66
F34	220246	001603	229.00	174.00	180.00	280.00	208.02	-71.98
F34	220253	001610	100.00	160.00	177.00	226.00	161.32	-64.68
F34	220260	001626	121.00	187.00	147.00	195.00	187.58	-7.42
F34	220283	001754	122.00	192.00	152.00	230.00	190.27	-39.73

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F34	220284	001785	151.00	164.00	187.00	240.00	177.77	-62.23
F34	220287	001790	331.00	284.00	219.00	359.00	300.01	-58.99
F34	220288	001799	222.00	222.00	122.00	262.00	241.99	-20.01
F34	220313	001797	138.00	217.00	222.00	291.00	202.69	-88.31
F34	320057	100379	322.00	167.00	149.00	297.00	235.48	-61.52
F34	320069	100186	248.00	198.00	176.00	231.00	228.66	-2.34
F34	320072	100128	94.00	176.00	133.00	212.00	174.59	-37.41
F34	320073	100126	308.00	224.00	159.00	278.00	264.39	-13.61
F34	320080	100170	212.00	127.00	123.00	217.00	181.65	-35.35
F34	320090	100221	196.00	160.00	118.00	201.00	197.35	-3.65
F34	320129	100228	276.00	204.00	150.00	257.00	243.87	-13.13
F34	320174	100343	229.00	158.00	173.00	197.00	205.41	8.41
F34	320213	100398	155.00	172.00	106.00	198.00	193.78	-4.22
F34	320228	100547	235.00	158.00	99.00	256.00	210.17	-45.83
F34	320236	100426	263.00	114.00	117.00	277.00	190.45	-86.55
F34	320256	101197	210.00	158.00	86.00	240.00	204.29	-35.71
F34	320273	100489	98.00	86.00	77.00	146.00	128.49	-17.51
F34	320295	100591	289.00	132.00	111.00	254.00	209.20	-44.80
F34	320301	100864	260.00	154.00	133.00	247.00	211.05	-35.95
F34	320337	100605	87.00	196.00	146.00	201.00	182.94	-18.06
F34	320405	100890	125.00	158.00	95.00	152.00	177.72	25.72
F34	320431	100944	117.00	90.00	114.00	160.00	132.02	-27.98
F34	420014	000018	75.00	164.00	77.00	189.00	168.58	-20.42
F34	420016	000015	97.00	210.00	104.00	205.00	199.55	-5.45
F34	420017	000016	65.00	182.00	70.00	253.00	177.29	-75.71
F34	420030	000032	277.00	221.00	116.00	310.00	258.60	-51.40
F34	420031	000024	124.00	227.00	105.00	238.00	217.75	-20.25
F34	420032	000010	112.00	200.00	125.00	236.00	195.42	-40.58
F34	420044	000038	188.00	209.00	130.00	256.00	222.99	-33.01
F34	420045	000041	707.00	236.00	165.00	546.00	390.37	-155.63
F34	420054	000057	179.00	276.00	132.00	326.00	260.41	-65.59
F34	420061	000063	185.00	234.00	177.00	296.00	231.35	-64.65
F34	420072	000071	387.00	265.00	143.00	364.00	315.31	-48.69
F34	420074	000074	229.00	195.00	104.00	277.00	230.04	-46.96
F34	420076	000078	294.00	194.00	139.00	319.00	244.59	-74.41
F34	420083	000085	100.00	189.00	134.00	225.00	184.09	-40.91
F34	420085	000090	434.00	221.00	196.00	393.00	295.75	-97.25
F34	420110	000111	175.00	202.00	150.00	258.00	212.41	-45.59
F34	420113	000114	172.00	232.00	143.00	251.00	230.45	-20.55
F34	420114	000115	208.00	195.00	103.00	251.00	223.88	-27.12
F34	420132	000131	1782.00	901.00	670.00	1529.00	1050.58	-478.42
F34	420143	000143	155.00	198.00	106.00	235.00	209.44	-25.56
F34	420151	000151	168.00	206.00	154.00	284.00	212.23	-71.77
F34	520051	100050	460.00	238.00	164.00	431.00	317.72	-113.28
F34	520057	100009	530.00	233.00	171.00	706.00	334.81	-371.19
F34	520061	100100	284.00	253.00	176.00	334.00	272.57	-61.43
F34	520074	100021	231.00	270.00	196.00	289.00	264.47	-24.53
F34	520124	100061	202.00	264.00	167.00	336.00	255.75	-80.25
F34	520167	100485	385.00	367.00	265.00	467.00	360.50	-106.50
F34	520189	100280	397.00	326.00	180.00	450.00	349.89	-100.11

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F34	520198	100479	305.00	258.00	160.00	404.00	283.84	-120.16
F34	520203	100487	200.00	248.00	196.00	302.00	241.93	-60.07
F34	520207	100566	203.00	118.00	109.00	208.00	175.26	-32.74
F34	520226	100476	244.00	279.00	234.00	352.00	269.10	-82.90
F34	520233	100503	282.00	215.00	172.00	301.00	249.57	-51.43
F34	520235	100629	199.00	186.00	125.00	262.00	213.05	-48.95
F34	520251	100489	337.00	256.00	181.00	347.00	289.63	-57.37
F34	520254	100455	140.00	159.00	132.00	211.00	178.25	-32.75
F34	520318	100622	237.00	220.00	139.00	301.00	243.18	-57.82
F34	520355	100708	130.00	274.00	236.00	279.00	231.70	-47.30
F34	520372	100791	284.00	266.00	285.00	368.00	266.95	-101.05
F34	620017	000036	297.00	45.00	64.00	174.00	164.99	-9.01
F34	620024	000025	114.00	208.00	97.00	324.00	204.30	-119.70
F34	620025	000072	252.00	253.00	197.00	305.00	260.39	-44.61
F34	620074	000039	215.00	136.00	121.00	237.00	188.21	-48.79
F34	620075	000049	58.00	147.00	47.00	188.00	153.94	-34.06
F34	620076	000119	91.00	195.00	185.00	200.00	178.72	-21.28
F34	620077	000067	98.00	149.00	192.00	217.00	152.25	-64.75
F34	620078	000081	239.00	127.00	142.00	215.00	187.39	-27.61
F34	620079	000062	262.00	123.00	116.00	197.00	195.08	-1.92
F34	620088	000083	392.00	90.00	94.00	308.00	216.85	-91.15
F34	620096	000259	269.00	104.00	110.00	268.00	186.47	-81.53
F34	620097	000300	266.00	161.00	122.00	190.00	218.42	28.42
F34	620098	000205	109.00	128.00	134.00	268.00	150.05	-117.95
F34	620194	000269	244.00	204.00	241.00	299.00	223.06	-75.94
F34	620207	000047	270.00	157.00	94.00	263.00	220.67	-42.33
F34	620226	000151	170.00	194.00	140.00	233.00	207.33	-25.67
F34	620236	000180	68.00	201.00	130.00	248.00	182.23	-65.77
F34	620242	000051	153.00	116.00	139.00	174.00	155.38	-18.62
F35	120182	001406	140.00	215.00	136.00	208.00	211.49	3.49
F35	120187	001410	143.00	183.00	143.00	160.00	192.25	32.25
F35	120190	001413	125.00	193.00	125.00	166.00	195.10	29.10
F35	120260	001565	110.00	154.00	115.00	156.00	168.35	12.35
F35	120261	001566	330.00	168.00	164.00	222.00	236.63	14.63
F35	120275	001585	219.00	194.00	184.00	215.00	216.58	1.58
F35	120276	001586	89.00	205.00	99.00	190.00	194.76	4.76
F35	120299	001658	183.00	166.00	124.00	187.00	196.33	9.33
F35	120313	001676	108.00	166.00	130.00	160.00	173.13	13.13
F35	120319	001683	173.00	91.00	101.00	173.00	151.00	-22.00
F35	120326	001690	166.00	151.00	100.00	164.00	185.17	21.17
F35	220112	001242	277.00	254.00	122.00	345.00	277.74	-67.26
F35	220152	001351	147.00	154.00	113.00	173.00	179.68	6.68
F35	220159	001360	93.00	68.00	38.00	109.00	120.96	11.96
F35	220178	001412	253.00	209.00	191.00	195.00	234.33	39.33
F35	220219	001571	136.00	137.00	78.00	149.00	170.46	21.46
F35	220232	001588	842.00	286.00	281.00	290.00	446.61	156.61
F35	220245	001602	344.00	243.00	230.00	343.00	277.85	-65.15
F35	220255	001612	275.00	195.00	142.00	146.00	239.13	93.13
F35	220270	001656	365.00	236.00	215.00	241.00	281.78	40.78
F35	220274	001728	165.00	164.00	152.00	162.00	186.28	24.28

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F35	220276	001730	170.00	177.00	146.00	172.00	196.35	24.35
F35	320008	100033	216.00	155.00	109.00	223.00	201.44	-21.56
F35	320011	100042	104.00	56.00	71.00	150.00	112.95	-37.05
F35	320019	100054	189.00	163.00	197.00	170.00	187.32	17.32
F35	320104	100259	98.00	126.00	109.00	131.00	148.63	17.63
F35	320126	100247	164.00	149.00	136.00	217.00	178.92	-38.08
F35	320143	100332	68.00	120.00	93.00	101.00	138.01	37.01
F35	320154	100320	61.00	102.00	78.00	104.00	126.92	22.92
F35	320173	100317	245.00	150.00	132.00	197.00	204.28	7.28
F35	320203	100383	371.00	181.00	88.00	291.00	266.11	-24.89
F35	320237	100412	91.00	59.00	52.00	111.00	113.21	2.21
F35	420093	000099	475.00	242.00	151.00	338.00	326.23	-11.77
F35	420116	000116	530.00	226.00	122.00	452.00	336.64	-115.36
F35	420130	000129	544.00	245.00	178.00	417.00	345.37	-71.63
F35	420146	000146	319.00	215.00	142.00	282.00	264.36	-17.64
F35	420148	000148	261.00	207.00	75.00	266.00	250.43	-15.57
F35	420194	000194	246.00	206.00	114.00	253.00	240.53	-12.47
F35	420195	000195	107.00	141.00	41.00	134.00	168.75	34.75
F35	420198	000198	237.00	185.00	109.00	206.00	225.80	19.80
F35	420201	000201	183.00	179.00	123.00	189.00	204.29	15.29
F35	420642	000979	148.00	111.00	83.00	240.00	157.78	-82.22
F35	520058	100209	367.00	262.00	169.00	465.00	301.24	-163.76
F35	520086	100231	412.00	262.00	168.00	397.00	317.31	-79.69
F35	520095	100532	169.00	134.00	122.00	197.00	173.11	-23.89
F35	520146	100101	413.00	338.00	339.00	502.00	342.29	-159.71
F35	520168	100413	306.00	322.00	148.00	381.00	324.17	-56.83
F35	520171	100188	205.00	175.00	141.00	421.00	206.24	-214.76
F35	520178	100262	439.00	377.00	231.00	370.00	366.90	-3.10
F35	520193	100270	242.00	248.00	116.00	269.00	264.38	-4.62
F35	620099	000266	252.00	151.00	144.00	242.00	205.49	-36.51
F35	620228	000270	112.00	57.00	52.00	117.00	118.29	1.29
F35	620234	000032	317.00	219.00	221.00	272.00	256.42	-15.58
F35	620238	000195	77.00	77.00	110.00	134.00	113.30	-20.70
F35	620273	000250	287.00	173.00	157.00	220.00	227.62	7.62
F35	620279	000190	172.00	164.00	146.00	251.00	189.12	-61.88
F35	620308	000258	359.00	194.00	122.00	360.00	266.15	-93.85
F35	620323	000033	65.00	87.00	76.00	112.00	119.33	7.33
F35	620396	000288	824.00	232.00	158.00	205.00	423.86	218.86
F36	120118	001329	207.00	157.00	185.00	202.00	190.57	-11.43
F36	120296	001654	235.00	146.00	192.00	192.00	191.47	-0.53
F36	120306	001667	234.00	105.00	162.00	189.00	170.17	-18.83
F36	220195	001460	302.00	117.00	116.00	133.00	203.44	70.44
F36	220248	001605	179.00	170.00	227.00	270.00	184.84	-85.16
F36	220303	001860	224.00	139.00	176.00	180.00	185.93	5.93
F36	220324	000824	86.00	99.00	170.00	109.00	121.25	12.25
F36	220358	001898	69.00	93.00	168.00	162.00	112.79	-49.21
F36	320204	100461	213.00	86.00	131.00	153.00	156.26	3.26
F36	320241	100410	175.00	79.00	120.00	186.00	142.02	-43.98
F36	320248	100427	65.00	120.00	130.00	136.00	132.54	-3.46
F36	420104	000105	137.00	137.00	171.00	160.00	159.29	-0.71

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F36	420246	000246	618.00	173.00	139.00	360.00	328.97	-31.03
F36	420314	000335	112.00	145.00	174.00	187.00	156.25	-30.75
F36	420338	000384	295.00	153.00	221.00	254.00	210.08	-43.92
F36	520222	100499	220.00	233.00	240.00	295.00	233.46	-61.54
F36	520223	100472	198.00	223.00	209.00	238.00	224.67	-13.33
F36	520353	100684	214.00	151.00	180.00	298.00	189.67	-108.33
F36	520366	100697	403.00	236.00	223.00	373.00	292.17	-80.83
F36	620199	000281	112.00	100.00	163.00	142.00	130.50	-11.50
F36	620239	000061	237.00	69.00	119.00	170.00	154.69	-15.31
F36	620266	000131	155.00	143.00	158.00	188.00	169.90	-18.10
F36	620443	000349	370.00	243.00	228.00	190.00	285.89	95.89
F37	120410	001762	128.00	182.00	122.00	269.00	189.74	-79.26
F37	120536	001819	351.00	379.00	229.00	512.00	361.99	-150.01
F37	220107	001231	169.00	181.00	175.00	339.00	194.88	-144.12
F37	220310	001796	37.00	148.00	146.00	181.00	139.05	-41.95
F37	320269	100400	183.00	109.00	111.00	332.00	163.60	-168.40
F37	320426	100995	323.00	150.00	81.00	289.00	233.93	-55.07
F37	320435	101069	68.00	76.00	54.00	265.00	116.32	-148.68
F37	420406	000505	138.00	74.00	37.00	179.00	138.17	-40.83
F37	420587	000848	516.00	192.00	135.00	494.00	310.36	-183.64
F37	420593	000854	109.00	119.00	102.00	172.00	148.57	-23.43
F37	520249	100466	218.00	325.00	262.00	457.00	285.56	-171.44
F37	520335	100659	405.00	291.00	230.00	752.00	325.03	-426.97
F37	520337	100635	407.00	239.00	139.00	448.00	298.14	-149.86
F38	120161	001380	142.00	193.00	66.00	177.00	207.72	30.72
F38	120289	001633	82.00	200.00	119.00	174.00	187.18	13.18
F38	120324	001688	342.00	127.00	86.00	289.00	225.15	-63.85
F38	220066	001120	176.00	194.00	136.00	217.00	209.62	-7.38
F38	220204	001512	42.00	197.00	146.00	186.00	170.06	-15.94
F38	220278	001743	130.00	196.00	151.00	199.00	195.20	-3.80
F38	220279	001744	130.00	121.00	89.00	158.00	157.67	-0.33
F38	220311	001801	120.00	193.00	158.00	187.00	189.53	2.53
F38	320035	100105	345.00	144.00	101.00	261.00	234.43	-26.57
F38	320047	100337	230.00	198.00	141.00	458.00	227.59	-230.41
F38	320079	100411	103.00	146.00	95.00	153.00	163.90	10.90
F38	320357	100631	133.00	166.00	103.00	154.00	183.95	29.95
F38	420047	000049	175.00	174.00	97.00	219.00	202.09	-16.91
F38	420075	000081	263.00	146.00	97.00	248.00	211.57	-36.43
F38	420196	000196	108.00	159.00	99.00	209.00	172.74	-36.26
F38	420380	000480	286.00	89.00	113.00	351.00	182.15	-168.85
F38	520010	100006	404.00	229.00	171.00	439.00	294.67	-144.33
F38	520070	100081	171.00	230.00	113.00	197.00	232.65	35.65
F38	520113	100047	223.00	212.00	129.00	274.00	237.20	-36.80
F38	520224	100524	176.00	229.00	146.00	247.00	229.47	-17.53
F38	620086	000147	105.00	153.00	95.00	185.00	168.72	-16.28
F38	620087	000170	112.00	198.00	135.00	202.00	192.99	-9.01
F38	620089	000192	193.00	131.00	102.00	228.00	180.96	-47.04
F38	620235	000052	113.00	92.00	96.00	196.00	134.25	-61.75
F38	620420	000272	142.00	183.00	91.00	137.00	198.36	61.36
F39	120213	001447	448.00	61.00	27.00	309.00	224.42	-84.58

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYPODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F39	620245	000034	3275.00	843.00	620.00	2399.00	1468.94	-930.06
F40	120288	001632	381.00	159.00	176.00	285.00	245.00	-40.00
F40	120307	001668	205.00	148.00	169.00	173.00	186.53	13.53
F40	220244	001601	145.00	167.00	104.00	192.00	188.02	-3.98
F40	220291	001793	1406.00	1372.00	803.00	1081.00	1205.27	124.27
F40	320013	100047	171.00	167.00	86.00	180.00	198.03	18.03
F40	320315	100564	197.00	145.00	132.00	160.00	186.89	26.89
F40	320420	101177	37.00	50.00	117.00	266.00	83.60	-182.40
F40	420273	000277	424.00	136.00	101.00	349.00	253.27	-95.73
F40	420298	000317	334.00	258.00	168.00	300.00	291.54	-8.46
F40	520234	100477	132.00	156.00	176.00	249.00	168.62	-80.38
F40	520332	100637	263.00	258.00	160.00	324.00	271.27	-52.73
F40	620334	000166	468.00	168.00	148.00	164.00	279.93	115.93
F40	620414	000181	351.00	107.00	145.00	566.00	208.52	-357.48
F41	120325	001689	342.00	110.00	120.00	419.00	210.71	-208.29
F41	120423	001753	124.00	122.00	125.00	233.00	152.04	-80.96
F41	220208	001553	108.00	154.00	140.00	214.00	164.67	-49.33
F41	220330	001882	242.00	155.00	156.00	412.00	203.43	-208.57
F41	220340	001873	141.00	97.00	65.00	202.00	149.47	-52.53
F41	220375	001881	43.00	167.00	191.00	182.00	146.74	-35.26
F41	320255	100477	185.00	100.00	94.00	200.00	160.88	-39.12
F41	320411	101438	182.00	59.00	58.00	346.00	139.72	-206.28
F41	320430	100991	31.00	56.00	48.00	200.00	93.93	-106.07
F41	420594	000855	113.00	107.00	94.00	201.00	143.53	-57.47
F41	420607	000869	172.00	156.00	125.00	437.00	186.89	-250.11
F41	520109	100416	68.00	174.00	160.00	259.00	162.27	-96.73
F41	520147	100490	330.00	276.00	178.00	411.00	299.95	-111.05
F41	520212	100519	150.00	193.00	148.00	260.00	199.75	-60.25
F41	520336	100633	262.00	221.00	169.00	467.00	247.57	-219.43
F41	620338	000097	202.00	132.00	135.00	373.00	180.18	-192.82
F42	120535	001818	232.00	176.00	265.00	202.00	199.64	-2.36
F44	320446	101323	145.00	63.00	105.00	441.00	125.25	-315.75
F44	420605	000867	258.00	104.00	105.00	191.00	183.79	-7.21
F44	520354	100676	102.00	70.00	56.00	147.00	122.64	-24.36
F45	120462	001797	212.00	173.00	179.00	276.00	202.45	-73.55
F45	220118	001258	140.00	158.00	142.00	153.00	176.41	23.41
F45	220212	001559	37.00	87.00	95.00	131.00	108.60	-22.40
F45	220254	001611	169.00	205.00	142.00	227.00	213.41	-13.59
F45	220293	000823	178.00	174.00	162.00	236.00	194.97	-41.03
F45	320002	100018	54.00	152.00	150.00	157.00	146.06	-10.94
F45	320009	100034	147.00	138.00	156.00	172.00	164.74	-7.26
F45	320016	100051	72.00	99.00	103.00	121.00	125.32	4.32
F45	320049	100149	46.00	116.00	106.00	127.00	127.41	0.41
F45	320088	100150	150.00	101.00	78.00	145.00	152.97	7.97
F45	420169	000169	125.00	164.00	110.00	193.00	179.48	-13.52
F45	420247	000247	80.00	142.00	114.00	177.00	152.26	-24.74
F45	420289	000303	230.00	255.00	199.00	322.00	254.76	-67.24
F45	520220	100562	140.00	214.00	174.00	207.00	206.20	-0.80
F45	520268	100543	122.00	173.00	114.00	169.00	183.51	14.51
F45	520269	100497	116.00	167.00	118.00	141.00	177.61	36.61

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F45	520291	100573	158.00	176.00	154.00	205.00	191.17	-13.83
F45	620101	000241	380.00	176.00	205.00	227.00	251.36	24.36
F45	620200	000164	149.00	188.00	170.00	214.00	193.73	-20.27
F46	120295	001653	163.00	114.00	135.00	248.00	157.66	-90.34
F46	120408	001722	236.00	93.00	158.00	291.00	164.04	-126.96
F46	420208	000208	308.00	207.00	168.00	462.00	250.02	-211.98
F46	520326	100620	266.00	125.00	118.00	370.00	197.23	-172.77
F46	520356	100679	213.00	116.00	105.00	629.00	177.54	-451.46
F46	520368	100709	385.00	202.00	174.00	313.00	272.34	-40.66
F47	120096	001305	97.00	35.00	55.00	87.00	100.18	13.18
F47	120149	001364	109.00	69.00	80.00	126.00	121.17	-4.83
F47	120194	001417	74.00	65.00	86.00	126.00	107.54	-18.46
F47	220299	001808	175.00	86.00	98.00	193.00	148.96	-44.04
F47	220341	001868	126.00	108.00	111.00	200.00	145.93	-54.07
F47	320283	100580	70.00	75.00	125.00	126.00	107.55	-18.45
F47	320452	101460	103.00	64.00	100.00	176.00	113.89	-62.11
F47	420322	000346	117.00	117.00	132.00	204.00	146.06	-57.94
F47	420384	000481	132.00	112.00	132.00	209.00	147.54	-61.46
F47	520209	100486	163.00	130.00	152.00	305.00	165.20	-139.80
F47	520225	100283	139.00	136.00	149.00	241.00	162.00	-79.00
F47	620001	000016	70.00	17.00	22.00	104.00	85.32	-18.68
F47	620398	000283	101.00	44.00	56.00	97.00	106.68	9.68
G51	120020	001175	265.00	200.00	130.00	271.00	240.63	-30.37
G51	120027	001197	518.00	343.00	110.00	248.00	405.00	157.00
G51	120028	001198	342.00	58.00	87.00	143.00	183.46	40.46
G51	120041	001225	188.00	84.00	56.00	146.00	156.83	10.83
G51	120051	001247	116.00	75.00	39.00	170.00	131.94	-38.06
G51	120087	001291	269.00	100.00	53.00	99.00	191.09	92.09
G51	120095	001304	125.00	123.00	59.00	207.00	161.08	-45.92
G51	220091	001206	419.00	179.00	117.00	222.00	275.70	53.70
G51	220290	000851	334.00	231.00	138.00	226.00	278.98	52.98
G51	220329	000816	71.00	143.00	148.00	189.00	145.97	-43.03
G51	220360	001891	173.00	217.00	177.00	378.00	217.52	-160.48
G51	220377	001894	116.00	166.00	181.00	272.00	169.23	-102.77
G51	320281	100630	260.00	31.00	30.00	100.00	149.67	49.67
G51	320354	100653	153.00	161.00	108.00	198.00	186.31	-11.69
G51	320356	100650	138.00	202.00	118.00	194.00	205.28	11.28
G51	420250	000250	242.00	27.00	59.00	154.00	135.28	-18.72
G51	420416	000515	224.00	97.00	39.00	131.00	177.53	46.53
G51	420418	000517	227.00	38.00	82.00	119.00	137.59	18.59
G51	420446	000567	336.00	97.00	81.00	180.00	205.90	25.90
G51	420454	000593	140.00	165.00	143.00	204.00	180.51	-23.49
G51	420585	000844	372.00	33.00	50.00	169.00	181.95	12.95
G51	420595	000856	202.00	105.00	57.00	169.00	173.54	4.54
G51	420597	000858	301.00	245.00	120.00	387.00	279.75	-107.25
G51	420598	000859	290.00	43.00	129.00	171.00	153.67	-17.33
G51	420600	000861	185.00	146.00	63.00	164.00	192.41	28.41
G51	420603	000865	263.00	88.00	83.00	132.00	178.37	46.37
G51	420637	000971	244.00	118.00	41.00	192.00	195.93	3.93
G51	520037	100005	333.00	123.00	283.00	198.00	195.74	-2.26

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G51	520293	100561	783.00	489.00	263.00	742.00	555.23	-186.77
G51	520338	100644	276.00	205.00	191.00	213.00	239.41	26.41
G51	520339	100645	233.00	158.00	144.00	205.00	204.02	-0.98
G51	520373	100802	430.00	424.00	413.00	884.00	390.06	-493.94
G51	620267	000243	317.00	99.00	52.00	162.00	204.99	42.99
G51	620272	000142	104.00	19.00	23.00	94.00	96.59	2.59
G51	620282	000161	158.00	102.00	108.00	148.00	152.27	4.27
G51	620305	000238	293.00	173.00	115.00	292.00	234.60	-17.40
G52	120023	001187	63.00	83.00	40.00	192.00	120.76	-71.24
G52	120052	001248	182.00	90.00	43.00	89.00	160.25	71.25
G52	120098	001308	191.00	74.00	100.00	130.00	146.27	16.27
G52	120151	001370	313.00	189.00	115.00	453.00	249.33	-203.67
G52	120201	001424	158.00	157.00	81.00	264.00	188.73	-75.27
G52	120205	001436	7.00	682.00	91.00	942.00	458.51	-483.49
G52	120232	001473	66.00	84.00	74.00	126.00	118.07	-7.93
G52	120290	001634	112.00	101.00	31.00	202.00	147.39	-54.61
G52	120308	001669	227.00	65.00	48.00	124.00	158.05	34.05
G52	120430	001792	267.00	151.00	107.00	205.00	214.55	9.55
G52	120442	001772	473.00	78.00	43.00	357.00	240.17	-116.83
G52	120457	001773	176.00	180.00	109.00	160.00	204.52	44.52
G52	120460	001793	204.00	123.00	116.00	145.00	177.71	32.71
G52	120466	001778	243.00	63.00	36.00	138.00	163.12	25.12
G52	120467	001716	202.00	31.00	31.00	74.00	132.18	58.18
G52	120468	001735	266.00	85.00	89.00	221.00	176.72	-44.28
G52	120530	001808	240.00	247.00	133.00	194.00	261.08	67.08
G52	220172	001387	275.00	254.00	186.00	474.00	269.24	-204.76
G52	220182	001418	164.00	182.00	129.00	427.00	199.66	-227.34
G52	220198	001476	302.00	202.00	170.00	376.00	247.98	-128.02
G52	220218	001570	135.00	99.00	52.00	88.00	150.48	62.48
G52	220237	001594	52.00	62.00	50.00	105.00	103.58	-1.42
G52	220271	001667	160.00	83.00	53.00	249.00	151.82	-97.18
G52	220277	001731	313.00	235.00	106.00	497.00	280.84	-216.16
G52	220400	000844	31.00	76.00	22.00	64.00	109.18	45.18
G52	220320	001810	176.00	166.00	83.00	315.00	199.29	-115.71
G52	220342	001869	301.00	167.00	122.00	226.00	232.52	6.52
G52	220346	000852	134.00	37.00	39.00	105.00	132.41	27.41
G52	220350	001853	196.00	162.00	80.00	228.00	203.24	-24.76
G52	220351	001854	285.00	103.00	35.00	177.00	199.91	22.91
G52	220378	002054	380.00	218.00	92.00	591.00	290.60	-300.40
G52	320185	100470	227.00	91.00	27.00	99.00	176.30	77.30
G52	320249	100447	225.00	86.00	41.00	103.00	170.96	67.96
G52	320321	100575	91.00	77.00	87.00	61.00	119.73	58.73
G52	320406	100892	193.00	112.00	46.00	94.00	176.42	82.42
G52	320421	101410	138.00	65.00	21.00	161.00	134.72	-26.28
G52	320427	101076	140.00	43.00	31.00	53.00	120.84	67.84
G52	320428	101147	186.00	68.00	42.00	121.00	148.32	27.32
G52	320429	101171	207.00	113.00	44.00	103.00	181.46	78.46
G52	320480	101465	92.00	115.00	49.00	123.00	147.61	24.61
G52	320484	101683	90.00	34.00	76.00	70.00	94.89	24.89
G52	320487	101860	176.00	223.00	103.00	296.00	231.16	-64.84

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G52	320468	101853	148.00	111.00	27.00	173.00	164.69	-8.31
G52	320489	101877	188.00	83.00	32.00	269.00	159.18	-109.82
G52	420129	000128	120.00	153.00	91.00	194.00	173.70	-20.30
G52	420468	000616	222.00	66.00	91.00	147.00	153.05	6.05
G52	420531	000704	156.00	26.00	13.00	101.00	117.61	16.61
G52	420583	000842	247.00	165.00	83.00	376.00	219.95	-156.05
G52	420584	000843	310.00	138.00	150.00	224.00	214.29	-9.71
G52	420599	000860	141.00	202.00	42.00	234.00	215.55	-18.45
G52	420601	000862	205.00	52.00	27.00	83.00	146.22	63.22
G52	420614	000890	135.00	104.00	74.00	116.00	150.78	34.78
G52	420633	000920	113.00	177.00	81.00	384.00	184.29	-199.71
G52	520031	100187	83.00	79.00	73.00	133.00	113.38	-19.62
G52	520063	100576	253.00	205.00	137.00	378.00	247.02	-130.98
G52	520069	100622	122.00	119.00	117.00	194.00	148.81	-45.19
G52	520073	100618	292.00	85.00	109.00	513.00	169.39	-343.61
G52	520075	100518	218.00	224.00	193.00	284.00	233.24	-50.76
G52	520087	100078	372.00	148.00	136.00	171.00	240.61	69.61
G52	520090	100525	186.00	147.00	96.00	263.00	183.25	-79.75
G52	520105	100210	204.00	273.00	151.00	534.00	261.74	-270.26
G52	520154	100108	139.00	101.00	55.00	182.00	170.48	-11.52
G52	520164	100569	1911.00	119.00	134.00	921.00	684.30	-236.70
G52	520165	100482	230.00	134.00	102.00	184.00	193.85	9.85
G52	520201	100303	128.00	196.00	156.00	202.00	193.98	-8.02
G52	520231	100607	309.00	231.00	171.00	367.00	267.42	-99.58
G52	520247	100664	201.00	121.00	84.00	186.00	177.55	-8.45
G52	520274	100537	267.00	273.00	124.00	475.00	285.94	-189.06
G52	520292	100604	314.00	171.00	220.00	268.00	228.23	-39.77
G52	520322	100625	177.00	109.00	99.00	134.00	163.29	29.29
G52	520324	100619	254.00	151.00	145.00	206.00	205.97	-0.03
G52	520327	100618	208.00	73.00	68.00	147.00	154.71	7.71
G52	520343	100654	187.00	73.00	66.00	124.00	148.06	24.06
G52	620032	000013	257.00	103.00	97.00	116.00	183.88	67.88
G52	620110	000120	167.00	124.00	92.00	167.00	169.59	2.59
G52	620111	000103	212.00	134.00	87.00	356.00	191.51	-164.49
G52	620112	000130	368.00	238.00	48.00	261.00	304.48	43.48
G52	620268	000316	294.00	142.00	96.00	253.00	206.59	-46.41
G52	620269	000165	61.00	148.00	83.00	193.00	154.01	-38.99
G52	620280	000050	238.00	86.00	46.00	299.00	174.24	-124.76
G52	620281	000230	222.00	102.00	64.00	113.00	176.86	63.86
G52	620293	000225	329.00	61.00	62.00	169.00	185.66	16.66
G52	620304	000247	178.00	90.00	73.00	112.00	155.35	43.35
G52	620307	000048	310.00	120.00	63.00	203.00	219.60	16.60
G52	620309	000146	268.00	76.00	54.00	1128.00	176.21	-951.79
G52	620316	000208	278.00	124.00	65.00	166.00	206.16	40.16
G52	620347	000243	139.00	134.00	71.00	285.00	170.42	-114.58
G53	120040	001221	240.00	125.00	127.00	360.00	191.03	-168.97
G53	120042	001227	301.00	195.00	145.00	223.00	246.55	23.55
G53	120050	001246	323.00	260.00	182.00	256.00	293.15	37.15
G53	120055	001252	368.00	156.00	144.00	391.00	243.25	-147.75
G53	120058	001255	325.00	253.00	181.00	256.00	284.23	28.23

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GS3	120089	001295	1187.00	197.00	173.00	702.00	509.64	-192.36
GS3	120101	001311	275.00	180.00	136.00	185.00	230.84	45.84
GS3	120103	001313	378.00	192.00	127.00	272.00	270.02	-1.98
GS3	120131	001343	411.00	220.00	168.00	328.00	291.71	-36.29
GS3	120141	001354	424.00	174.00	167.00	447.00	268.02	-178.98
GS3	120160	001379	308.00	171.00	181.00	244.00	229.75	-14.25
GS3	120164	001384	153.00	121.00	82.00	187.00	165.42	-21.58
GS3	120189	001417	216.00	268.00	195.00	215.00	258.90	43.90
GS3	120210	001443	346.00	242.00	178.00	240.00	284.26	44.26
GS3	120212	001446	308.00	222.00	149.00	212.00	264.41	52.41
GS3	120305	001666	256.00	80.00	83.00	138.00	171.45	33.45
GS3	120312	001675	203.00	178.00	139.00	179.00	207.70	28.70
GS3	120321	001685	450.00	241.00	152.00	361.00	318.02	-42.98
GS3	220001	000924	194.00	182.00	141.00	190.00	207.17	17.17
GS3	220028	001056	313.00	234.00	141.00	236.00	275.92	39.92
GS3	220030	001058	261.00	206.00	165.00	366.00	238.73	-127.27
GS3	220037	001072	296.00	195.00	149.00	231.00	244.56	13.56
GS3	220042	001084	182.00	148.00	128.00	170.00	184.70	14.70
GS3	220043	001085	247.00	166.00	131.00	174.00	215.23	41.23
GS3	220044	001086	122.00	119.00	113.00	112.00	151.11	39.11
GS3	220045	001087	245.00	140.00	112.00	144.00	200.72	56.72
GS3	220065	001119	326.00	115.00	113.00	200.00	209.80	9.80
GS3	220067	001121	137.00	156.00	133.00	150.00	175.42	25.42
GS3	220076	001171	253.00	209.00	191.00	226.00	232.52	6.52
GS3	220133	001315	209.00	192.00	160.00	248.00	215.34	-32.66
GS3	220175	001395	1996.00	400.00	284.00	1475.00	860.02	-614.98
GS3	220179	001413	155.00	166.00	156.00	219.00	183.75	-35.25
GS3	220210	001556	267.00	194.00	181.00	361.00	233.73	-127.27
GS3	220321	002100	339.00	254.00	110.00	209.00	297.79	88.79
GS3	220331	000814	644.00	214.00	175.00	624.00	357.02	-266.98
GS3	220332	002091	355.00	275.00	167.00	293.00	308.19	15.19
GS3	220343	001890	312.00	211.00	149.00	364.00	258.99	-105.01
GS3	220361	001879	2129.00	342.00	240.00	971.00	870.83	-100.17
GS3	220380	002080	321.00	135.00	124.00	311.00	218.99	-92.01
GS3	220381	002064	464.00	222.00	140.00	339.00	312.24	-26.76
GS3	320043	100196	286.00	214.00	163.00	220.00	251.28	31.28
GS3	320150	100277	181.00	201.00	165.00	173.00	211.76	38.76
GS3	320156	100336	357.00	228.00	157.00	251.00	281.47	30.47
GS3	320182	100368	424.00	205.00	154.00	277.00	268.30	-8.70
GS3	320188	100370	222.00	139.00	119.00	175.00	192.37	17.37
GS3	320193	100391	186.00	64.00	79.00	135.00	140.74	5.74
GS3	320231	101220	101.00	109.00	79.00	328.00	142.39	-185.61
GS3	320286	100493	210.00	136.00	120.00	199.00	186.84	-12.16
GS3	320288	100496	286.00	229.00	179.00	228.00	255.93	27.93
GS3	320289	100520	321.00	190.00	140.00	253.00	250.14	-2.86
GS3	320291	100549	341.00	206.00	156.00	259.00	263.80	4.80
GS3	320299	100534	131.00	136.00	109.00	118.00	164.54	46.54
GS3	320330	100626	334.00	187.00	122.00	258.00	254.45	-3.55
GS3	320374	100721	196.00	152.00	119.00	212.00	192.90	-19.10
GS3	320402	100824	253.00	176.00	145.00	304.00	220.73	-83.27

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	320449	101623	64.00	102.00	79.00	253.00	127.69	-125.31
G53	320450	101436	401.00	242.00	105.00	416.00	309.74	-106.26
G53	320455	101513	179.00	144.00	110.00	244.00	168.34	-75.66
G53	320456	101591	62.00	86.00	63.00	341.00	119.43	-221.57
G53	320496	104116	351.00	129.00	92.00	306.00	228.31	-77.69
G53	320498	104118	208.00	143.00	104.00	180.00	192.43	12.43
G53	320499	104124	227.00	156.00	113.00	214.00	204.84	-9.16
G53	320500	104126	278.00	176.00	117.00	250.00	231.67	-18.33
G53	420008	000045	207.00	171.00	116.00	231.00	207.52	-23.48
G53	420010	000467	357.00	269.00	206.00	447.00	300.37	-146.63
G53	420042	000037	183.00	170.00	101.00	182.00	201.58	19.58
G53	420046	000043	348.00	238.00	158.00	333.00	284.92	-48.08
G53	420150	000150	546.00	207.00	118.00	355.00	330.48	-24.52
G53	420181	000181	249.00	164.00	104.00	240.00	217.36	-22.64
G53	420263	000263	155.00	143.00	103.00	198.00	176.68	-21.32
G53	420307	000326	159.00	157.00	115.00	166.00	184.83	18.83
G53	420319	000343	716.00	145.00	75.00	562.00	349.35	-212.65
G53	420320	000344	226.00	169.00	118.00	213.00	211.76	-1.24
G53	420365	000431	331.00	225.00	171.00	376.00	270.40	-105.60
G53	420401	000500	422.00	280.00	138.00	341.00	334.85	-6.15
G53	420405	000504	280.00	235.00	176.00	261.00	260.53	-2.47
G53	420407	000506	340.00	209.00	140.00	284.00	267.28	-16.72
G53	420417	000516	782.00	236.00	167.00	538.00	412.58	-125.42
G53	420512	000670	894.00	253.00	163.00	876.00	456.86	-419.14
G53	420547	000752	632.00	230.00	156.00	404.00	365.40	-38.60
G53	420561	000778	159.00	131.00	127.00	239.00	167.69	-71.31
G53	420647	201010	461.00	250.00	153.00	452.00	326.61	-125.39
G53	420648	001011	402.00	168.00	158.00	406.00	258.93	-147.07
G53	420649	001013	401.00	239.00	281.00	363.00	286.22	-76.78
G53	420650	001015	612.00	337.00	300.00	576.00	406.10	-169.90
G53	520027	100208	287.00	232.00	219.00	414.00	255.51	-158.49
G53	520035	100229	394.00	340.00	248.00	372.00	349.03	-22.97
G53	520036	100116	331.00	361.00	257.00	551.00	341.71	-209.29
G53	520076	100043	612.00	453.00	249.00	636.00	487.26	-153.74
G53	520081	100033	511.00	187.00	182.00	420.00	300.06	-119.94
G53	520134	100102	544.00	353.00	253.00	539.00	401.17	-137.83
G53	520149	100179	678.00	422.00	250.00	739.00	483.23	-255.77
G53	520197	100454	437.00	279.00	186.00	365.00	332.82	-32.18
G53	520199	100230	212.00	304.00	279.00	440.00	269.02	-170.98
G53	520219	100480	481.00	293.00	267.00	384.00	344.43	-39.57
G53	520242	100559	321.00	262.00	156.00	313.00	291.54	-21.46
G53	520284	100702	966.00	314.00	251.00	1040.00	504.31	-535.69
G53	520294	100578	373.00	276.00	178.00	454.00	312.83	-141.17
G53	520295	100568	338.00	210.00	185.00	264.00	261.73	-2.27
G53	520344	100653	440.00	280.00	218.00	369.00	330.37	-38.63
G53	520346	100657	119.00	175.00	134.00	526.00	181.35	-344.65
G53	520350	100669	180.00	204.00	182.00	339.00	211.17	-127.83
G53	620003	000006	285.00	209.00	144.00	263.00	250.31	-12.69
G53	620004	000001	299.00	235.00	177.00	320.00	266.10	-53.90
G53	620105	000124	431.00	230.00	180.00	316.00	302.25	-13.75

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	620108	000073	346.00	257.00	172.00	243.00	294.04	51.04
G53	620117	000254	404.00	236.00	195.00	354.00	295.92	-58.08
G53	620118	000211	439.00	256.00	202.00	337.00	317.59	-19.41
G53	620119	000251	342.00	263.00	252.00	311.00	286.59	-24.41
G53	620120	000236	371.00	152.00	113.00	318.00	245.56	-72.44
G53	620198	000128	540.00	152.00	165.00	430.00	289.76	-140.24
G53	620210	000038	392.00	187.00	183.00	282.00	264.29	-17.71
G53	620230	000065	305.00	204.00	140.00	248.00	253.78	5.78
G53	620283	000308	277.00	190.00	182.00	256.00	231.78	-24.22
G53	620303	000245	307.00	180.00	172.00	389.00	235.98	-153.02
G53	620317	000221	199.00	187.00	178.00	222.00	207.11	-14.89
G53	620348	000113	412.00	173.00	161.00	430.00	264.57	-165.43
G53	620427	000328	405.00	261.00	155.00	276.00	316.22	40.22
G53	620433	000340	520.00	221.00	174.00	272.00	324.22	52.22
G55	120034	001209	378.00	332.00	195.00	508.00	345.36	-162.64
G55	120043	001229	206.00	168.00	141.00	247.00	202.33	-44.67
G55	120054	001251	575.00	243.00	184.00	378.00	352.71	-25.29
G55	120062	001261	235.00	188.00	144.00	195.00	222.69	27.69
G55	120107	001317	259.00	92.00	76.00	150.00	180.44	30.44
G55	120108	001318	235.00	210.00	145.00	283.00	235.82	-47.18
G55	120125	001336	287.00	187.00	139.00	220.00	238.28	18.28
G55	120175	001379	477.00	247.00	208.00	352.00	322.81	-29.19
G55	120208	001439	336.00	239.00	172.00	263.00	280.20	17.20
G55	120231	001471	209.00	190.00	140.00	194.00	216.60	22.60
G55	120262	001568	230.00	231.00	174.00	196.00	243.39	47.39
G55	120287	001627	169.00	194.00	138.00	183.00	206.98	23.98
G55	120291	001635	248.00	123.00	100.00	224.00	192.86	-31.14
G55	120292	001639	197.00	96.00	67.00	126.00	165.39	39.39
G55	120302	001661	743.00	64.00	54.00	425.00	311.24	-113.76
G55	120303	001662	320.00	232.00	214.00	248.00	266.01	18.01
G55	220014	000953	273.00	234.00	178.00	247.00	257.58	10.58
G55	220090	001204	223.00	202.00	153.00	205.00	226.42	21.42
G55	220097	001212	215.00	183.00	149.00	174.00	213.07	39.07
G55	220099	001214	281.00	207.00	188.00	219.00	242.48	23.48
G55	220141	001331	236.00	251.00	190.00	230.00	255.26	25.26
G55	220158	001359	244.00	130.00	152.00	311.00	189.46	-121.54
G55	220163	001366	91.00	66.00	97.00	341.00	111.88	-229.12
G55	220169	001379	264.00	247.00	238.00	319.00	255.32	-63.68
G55	220174	001390	300.00	245.00	190.00	252.00	270.81	18.81
G55	220196	001456	283.00	222.00	181.00	261.00	252.98	-8.02
G55	220199	001488	374.00	316.00	222.00	293.00	331.80	38.80
G55	220220	001572	470.00	379.00	291.00	358.00	389.98	31.98
G55	220224	001577	408.00	324.00	213.00	283.00	347.91	64.91
G55	220233	001596	63.00	135.00	116.00	107.00	142.71	-54.29
G55	220242	001599	216.00	201.00	143.00	264.00	224.95	-39.05
G55	220265	001641	438.00	238.00	170.00	161.00	310.39	149.39
G55	220272	001669	227.00	192.00	206.00	220.00	215.05	-4.95
G55	220297	001795	503.00	171.00	118.00	397.00	295.92	-101.08
G55	220371	001887	165.00	311.00	206.00	260.00	268.17	8.17
G55	320021	100057	132.00	75.00	62.00	164.00	133.89	-30.11

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GSS	320033	100090	378.00	217.00	171.00	294.00	279.65	-14.3
GSS	320041	100231	212.00	190.00	157.00	207.00	215.40	8.4
GSS	320050	100124	226.00	191.00	142.00	216.00	222.05	6.0
GSS	320081	100232	166.00	89.00	82.00	122.00	150.64	28.6
GSS	320133	100110	418.00	180.00	157.00	292.00	271.07	-20.9
GSS	320157	100348	124.00	164.00	146.00	180.00	174.74	-5.2
GSS	320168	100503	181.00	212.00	136.00	298.00	221.96	-76.0
GSS	320192	100375	191.00	38.00	45.00	136.00	131.37	-4.6
GSS	320202	100390	125.00	149.00	138.00	157.00	166.99	9.9
GSS	320220	100535	305.00	160.00	131.00	238.00	228.39	-9.61
GSS	320303	100517	161.00	144.00	154.00	300.00	172.79	-127.21
GSS	320316	100589	210.00	139.00	178.00	145.00	187.06	42.0
GSS	320317	100581	241.00	157.00	126.00	206.00	205.02	-0.9
GSS	320328	100618	180.00	158.00	129.00	150.00	190.00	40.0
GSS	320329	100608	291.00	197.00	154.00	195.00	240.64	45.64
GSS	420057	000058	622.00	251.00	165.00	385.00	373.95	-11.05
GSS	420337	000381	96.00	168.00	145.00	601.00	168.89	-432.11
GSS	420472	000621	202.00	239.00	203.00	261.00	236.25	-24.75
GSS	420473	000622	323.00	210.00	152.00	272.30	261.31	-10.69
GSS	420475	000624	298.00	182.00	99.00	314.00	243.49	-70.51
GSS	420491	000638	262.00	238.00	173.00	329.00	257.31	-71.69
GSS	420557	000763	616.00	257.00	167.00	463.00	375.52	-87.48
GSS	420586	000847	280.00	172.00	172.00	208.00	223.07	15.07
GSS	420604	000866	442.00	280.00	142.00	406.00	340.35	-65.65
GSS	420606	000868	244.00	125.00	108.00	242.00	191.88	-50.12
GSS	420608	000870	226.00	121.00	69.00	107.00	188.89	81.89
GSS	420609	000871	749.00	244.00	188.00	269.00	404.93	135.93
GSS	420622	000903	175.00	230.00	184.00	207.00	225.08	18.08
GSS	420638	000972	306.00	224.00	137.00	320.00	266.50	-53.50
GSS	520007	100235	289.00	191.00	129.00	282.00	242.52	-39.48
GSS	520012	100125	263.00	251.00	211.00	364.00	265.58	-98.42
GSS	520013	100064	261.00	250.00	165.00	298.00	265.23	-32.77
GSS	520033	100498	383.00	343.00	244.00	383.00	348.04	-34.96
GSS	520056	100281	453.00	315.00	215.00	377.00	355.72	-21.28
GSS	520072	100103	315.00	290.00	187.00	398.00	302.78	-95.22
GSS	520089	100237	409.00	272.00	219.00	362.00	316.14	-45.86
GSS	520131	100555	395.00	284.00	201.00	386.00	321.40	-64.60
GSS	520145	100111	378.00	235.00	167.00	445.00	290.99	-154.01
GSS	520172	100335	288.00	251.00	176.00	329.00	273.77	-55.23
GSS	520192	100249	688.00	436.00	284.00	645.00	490.47	-154.53
GSS	520200	100444	221.00	189.00	148.00	392.00	218.61	-173.39
GSS	520208	100290	698.00	407.00	248.00	505.00	480.43	-24.57
GSS	520217	100411	274.00	250.00	163.00	295.00	269.37	-25.63
GSS	520261	100593	206.00	247.00	181.00	473.00	244.98	-178.02
GSS	620006	000011	341.00	296.00	236.00	317.00	308.14	-8.86
GSS	620216	000091	99.00	271.00	183.00	287.00	227.14	-59.86
GSS	620306	000077	447.00	261.00	208.00	366.00	322.26	-43.74
GSS	620311	000135	262.00	249.00	205.00	235.00	259.99	24.99
GSS	620314	000107	1245.00	262.00	199.00	552.00	562.96	10.96
GSS	620329	000054	1853.00	355.00	199.00	818.00	801.06	-16.94

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GSS	620332	000148	241.00	205.00	128.00	203.00	236.70	33.70
GSS	620336	000070	277.00	206.00	100.00	209.00	251.54	42.54
GSS	620339	000085	319.00	397.00	120.00	367.00	376.70	9.70
GSS	620344	000178	256.00	148.00	93.00	183.00	211.18	28.18
GSS	620351	000282	208.00	146.00	131.00	132.00	190.91	58.91
GSS	620428	000336	420.00	166.00	126.00	183.00	267.06	84.06
GSS	620429	000198	370.00	296.00	224.00	330.00	318.30	-11.70
GSS	620438	000339	341.00	248.00	202.00	246.00	283.42	37.42
GS6	420639	000973	277.00	195.00	78.00	244.00	247.63	3.63
GS6	520349	100704	160.00	110.00	102.00	317.00	156.43	-160.57
GS6	620263	000129	355.00	358.00	124.00	440.00	363.49	-76.51
GS7	120002	001134	288.00	150.00	79.00	223.00	223.69	0.69
GS7	120003	001135	99.00	153.00	156.00	160.00	159.40	-0.60
GS7	120004	001137	166.00	120.00	108.00	158.00	165.51	7.51
GS7	120021	001183	314.00	213.00	212.00	289.00	253.02	-35.98
GS7	120022	001189	86.00	160.00	96.00	154.00	167.12	13.12
GS7	120025	001192	279.00	69.00	40.00	209.00	177.02	-31.98
GS7	120030	001200	234.00	211.00	143.00	236.00	236.37	0.37
GS7	120031	001201	248.00	158.00	101.00	223.00	213.82	-9.18
GS7	120036	001213	258.00	146.00	136.00	223.00	205.27	-17.73
GS7	120038	001217	267.00	193.00	123.00	267.00	236.07	-30.93
GS7	120039	001220	243.00	174.00	117.00	203.00	219.98	16.98
GS7	120049	001242	248.00	151.00	139.00	203.00	204.91	1.91
GS7	120074	001277	250.00	200.00	138.00	286.00	235.15	-50.85
GS7	120076	001279	211.00	138.00	114.00	168.00	189.09	21.09
GS7	120093	001309	243.00	270.00	167.00	230.00	271.64	41.64
GS7	120119	001330	147.00	94.00	90.00	86.00	146.38	60.38
GS7	120130	001341	315.00	178.00	105.00	223.00	245.44	22.44
GS7	120133	001346	264.00	151.00	156.00	245.00	207.61	-37.39
GS7	120162	001381	441.00	150.00	167.00	299.00	258.66	-40.34
GS7	120166	001386	199.00	147.00	101.00	159.00	192.52	33.52
GS7	120207	001438	215.00	220.00	252.00	258.00	222.65	-35.35
GS7	120215	001451	221.00	134.00	168.00	379.00	183.01	-195.99
GS7	120230	001469	276.00	214.00	115.00	189.00	254.21	65.21
GS7	120234	001476	261.00	105.00	71.00	161.00	189.49	28.49
GS7	120249	001548	210.00	208.00	139.00	223.00	227.87	4.87
GS7	220018	000944	201.00	148.00	115.00	176.00	191.99	15.99
GS7	220019	000945	326.00	130.00	208.00	304.00	207.11	-96.89
GS7	220029	001057	227.00	144.00	148.00	182.00	193.30	11.30
GS7	220032	001063	183.00	128.00	121.00	139.00	175.61	-22.39
GS7	220034	001067	322.00	226.00	160.00	287.00	269.66	-17.34
GS7	220038	001073	330.00	213.00	169.00	220.00	263.11	43.11
GS7	220051	001093	475.00	210.00	177.00	341.00	307.36	-33.64
GS7	220057	001101	249.00	182.00	163.00	206.00	220.92	14.92
GS7	220062	001113	223.00	139.00	116.00	190.00	193.03	3.03
GS7	220064	001118	204.00	198.00	156.00	307.00	217.95	-89.05
GS7	220086	001200	249.00	173.00	158.00	250.00	216.12	-33.88
GS7	220100	001215	397.00	209.00	121.00	220.00	286.69	66.69
GS7	220138	001324	250.00	169.00	177.00	258.00	211.67	-46.33
GS7	220157	001358	376.00	219.00	133.00	250.00	284.95	34.95

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GST	220184	001429	335.00	228.00	175.00	206.00	272.91	66.91
GST	220240	001597	119.00	155.00	171.00	161.00	164.74	3.74
GST	220247	001604	704.00	218.00	189.00	233.00	375.67	142.67
GST	220250	001607	177.00	177.00	162.00	221.00	196.47	-24.53
GST	220258	001623	522.00	238.00	190.00	357.00	333.08	-23.92
GST	220259	001625	204.00	174.00	166.00	176.00	202.26	26.26
GST	220261	001628	83.00	137.00	157.00	198.00	144.84	-53.16
GST	220280	001747	393.00	233.00	163.00	222.00	294.77	72.77
GST	220339	002010	343.00	315.00	262.00	440.00	316.97	-123.03
GST	220357	001888	217.00	250.00	176.00	281.00	251.30	-29.70
GST	220367	001878	312.00	310.00	226.00	306.00	309.12	3.12
GST	320005	100022	221.00	126.00	141.00	162.00	181.52	19.52
GST	320015	100050	112.00	86.00	89.00	138.00	131.20	-6.80
GST	320030	100087	175.00	154.00	147.00	168.00	183.87	15.87
GST	320031	100088	226.00	163.00	153.00	210.00	203.82	-6.18
GST	320036	100153	212.00	158.00	143.00	205.00	197.85	-7.15
GST	320046	100129	294.00	206.00	98.00	375.00	256.88	-118.12
GST	320093	100185	212.00	102.00	104.00	212.00	168.93	-43.07
GST	320110	100218	245.00	160.00	130.00	201.00	210.55	9.55
GST	320113	100263	202.00	151.00	127.00	177.00	192.62	15.62
GST	320116	100261	162.00	144.00	92.00	135.00	180.74	45.74
GST	320177	100394	448.00	179.00	126.00	308.00	283.28	-24.72
GST	320180	100365	78.00	83.00	102.00	105.00	121.22	16.22
GST	320194	100378	123.00	104.00	125.00	167.00	140.89	-26.11
GST	320195	100377	95.00	44.00	63.00	178.00	104.02	-73.98
GST	320196	100373	160.00	101.00	115.00	141.00	151.40	10.40
GST	320197	100372	286.00	119.00	125.00	213.00	198.74	-14.26
GST	320198	100371	202.00	90.00	105.00	204.00	158.59	-45.41
GST	320199	100386	98.00	103.00	106.00	117.00	135.15	18.15
GST	320200	100389	1591.00	157.00	119.00	505.00	613.20	108.20
GST	320226	100595	289.00	228.00	179.00	428.00	264.81	-156.19
GST	320326	100588	131.00	106.00	110.00	140.00	146.34	6.34
GST	320338	100598	210.00	133.00	120.00	151.00	185.03	34.03
GST	320345	100611	69.00	120.00	98.00	111.00	137.69	26.69
GST	320376	100722	203.00	178.00	173.00	397.00	203.50	-193.50
GST	320501	104123	129.00	110.00	96.00	136.00	149.88	13.88
GST	420004	000004	270.00	114.00	113.00	257.00	192.28	-64.72
GST	420005	000005	2485.00	1787.00	1806.00	293.00	1654.65	1361.65
GST	420006	000006	123.00	142.00	74.00	169.00	170.07	1.07
GST	420009	000044	201.00	168.00	59.00	175.00	210.95	35.95
GST	420013	000021	169.00	201.00	109.00	194.00	215.07	21.07
GST	420020	000011	173.00	184.00	151.00	224.00	200.85	-23.15
GST	420024	000008	184.00	183.00	81.00	184.00	212.18	28.18
GST	420026	000025	242.00	197.00	84.00	211.00	237.61	26.61
GST	420028	000017	252.00	136.00	99.00	213.00	202.01	-10.99
GST	420029	000019	179.00	205.00	94.00	172.00	222.33	50.33
GST	420063	000062	266.00	203.00	155.00	236.00	239.65	3.65
GST	420090	000096	263.00	180.00	84.00	208.00	233.66	25.66
GST	420134	000133	508.00	238.00	161.00	362.00	332.47	-29.53
GST	420174	000174	354.00	281.00	180.00	316.00	309.91	-6.09

HYDROCARBONS

			KEYMODE VALUE			COMPOSITE VALUES		
MFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
GST	420179	000179	443.00	279.00	155.00	411.00	339.63	-71.37
GST	420243	000243	279.00	218.00	72.00	220.00	262.82	42.82
GST	420251	000251	358.00	231.00	140.00	292.00	285.92	-6.08
GST	420257	000257	302.00	175.00	142.00	320.00	235.17	-84.83
GST	420260	000260	264.00	252.00	146.00	234.00	269.68	35.68
GST	420321	000345	244.00	182.00	115.00	191.00	225.35	34.35
GST	420496	000654	1505.00	268.00	152.00	760.00	650.24	-109.76
GST	420641	000978	312.00	131.00	110.00	202.00	215.61	13.61
GST	420644	000981	248.00	146.00	117.00	203.00	204.61	1.61
GST	520006	100010	580.00	290.00	242.00	565.00	375.36	-189.64
GST	520029	100177	249.00	282.00	222.00	410.00	273.88	-136.12
GST	520030	100126	393.00	294.00	162.00	383.00	335.84	-47.16
GST	520034	100266	467.00	252.00	159.00	506.00	328.87	-177.13
GST	520060	100512	153.00	194.00	103.00	316.00	206.80	-109.20
GST	520065	100071	326.00	254.00	165.00	495.00	287.11	-207.89
GST	520077	100055	252.00	326.00	183.00	319.00	306.46	-12.54
GST	520099	100117	551.00	385.00	244.00	600.00	423.65	-176.35
GST	520102	100058	434.00	302.00	204.00	387.00	343.55	-43.45
GST	520108	100137	261.00	276.00	173.00	276.00	279.90	3.90
GST	520111	100062	240.00	376.00	224.00	336.00	327.56	-8.44
GST	520122	100060	302.00	303.00	228.00	339.00	301.66	-37.34
GST	520123	100059	635.00	328.00	257.00	693.00	412.87	-280.13
GST	520148	100153	414.00	299.00	197.00	460.00	336.62	-123.38
GST	520179	100219	332.00	347.00	142.00	493.00	341.59	-151.41
GST	520202	100488	413.00	347.00	249.00	387.00	358.82	-28.18
GST	520205	100484	172.00	148.00	127.00	307.00	181.82	-125.18
GST	520244	100515	285.00	288.00	172.00	330.00	294.44	-35.56
GST	520290	100553	410.00	284.00	145.00	360.00	332.20	-27.80
GST	520296	100571	447.00	353.00	228.00	427.00	375.20	-51.80
GST	520352	100674	168.00	217.00	213.00	424.00	211.58	-212.42
GST	620010	000019	325.00	176.00	121.00	293.00	241.64	-51.36
GST	620102	000053	241.00	179.00	98.00	152.00	224.74	72.74
GST	620104	000040	257.00	255.00	170.00	244.00	266.43	23.43
GST	620106	000306	276.00	246.00	213.00	349.00	261.39	-87.61
GST	620109	000058	324.00	150.00	91.00	321.00	232.39	-88.01
GST	620121	000186	502.00	152.00	120.00	300.00	283.93	-16.07
GST	620123	000324	278.00	202.00	111.00	171.00	248.07	77.07
GST	620124	000287	201.00	262.00	192.00	204.00	251.16	47.16
GST	620126	000294	183.00	111.00	127.00	156.00	162.59	6.59
GST	620128	000317	197.00	147.00	85.00	109.00	194.49	85.49
GST	620129	000140	306.00	203.00	142.00	262.00	253.23	-8.77
GST	620130	000312	349.00	194.00	142.00	183.00	260.69	77.69
GST	620131	000305	343.00	243.00	148.00	271.00	291.28	20.28
GST	620224	000268	256.00	263.00	210.00	240.00	266.01	26.01
GST	620247	000307	217.00	250.00	107.00	231.00	249.34	18.34
GST	620248	000167	395.00	206.00	145.00	307.00	281.33	-25.67
GST	620251	000037	102.00	122.00	90.00	241.00	149.76	-91.24
GST	620254	000276	227.00	142.00	220.00	252.00	183.21	-68.79
GST	620345	000139	223.00	261.00	136.00	187.00	264.05	77.05
GST	620419	000279	294.00	143.00	167.00	627.00	210.42	-416.58

HYDROCARBONS

			-----KEYMODE VALUE------			-------COMPOSITE VALUES-------		
MFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G59	120001	001130	282.00	124.00	124.00	202.00	200.68	-1.32
G59	120046	001236	281.00	125.00	141.00	197.00	198.89	1.89
G59	120048	001241	263.00	139.00	128.00	210.00	203.53	-6.47
G59	120080	001283	231.00	94.00	101.00	181.00	170.18	-10.82
G59	120163	001383	176.00	65.00	98.00	134.00	136.01	2.01
G59	120227	001466	147.00	56.00	75.00	103.00	125.34	22.34
G59	120327	001691	268.00	115.00	113.00	181.00	192.43	11.43
G59	320004	100016	290.00	54.00	79.00	210.00	166.47	-43.53
G59	320085	100220	102.00	29.00	52.00	116.00	98.43	-17.57
G59	320207	100393	183.00	89.00	103.00	170.00	154.34	-15.66
G59	320274	101556	119.00	71.00	97.00	118.00	123.27	5.27
G59	320324	100614	171.00	83.00	92.00	142.00	146.69	4.69
G59	320441	101124	389.00	108.00	96.00	298.00	236.54	-61.46
G59	320443	101555	264.00	136.00	114.00	235.00	203.75	-31.25
G59	420387	000484	154.00	165.00	176.00	238.00	180.63	-57.37
G59	420400	000499	233.00	117.00	96.00	217.00	187.04	-29.96
G59	420426	000525	204.00	101.00	93.00	187.00	167.29	-19.71
G59	420442	000563	271.00	91.00	67.00	167.00	184.54	17.54
G59	420474	000623	288.00	133.00	110.00	259.00	213.24	-45.76
G59	420505	000663	151.00	124.00	123.00	167.00	161.57	-5.43
G59	420524	000697	200.00	107.00	98.00	185.00	169.09	-15.91
G59	520093	100086	174.00	194.00	178.00	259.00	203.84	-55.16
G59	520094	100066	330.00	227.00	194.00	356.00	288.46	-67.54
G59	520115	100554	206.00	173.00	155.00	226.00	203.61	-22.39
G59	520187	100333	433.00	340.00	231.00	414.00	364.61	-49.39
G59	520257	100572	202.00	154.00	148.00	219.00	191.83	-27.17
G59	520271	100443	226.00	145.00	108.00	208.00	199.13	-8.87
G59	520288	100552	297.00	202.00	149.00	322.00	249.07	-72.93
G59	520306	100598	151.00	169.00	141.00	215.00	186.46	-28.54
G59	6[illegible]103	000055	143.00	75.00	88.00	136.00	133.98	-0.02
G59	620290	000169	313.00	107.00	143.00	244.00	197.38	-46.62
G59	620310	000323	914.00	173.00	155.00	166.00	420.46	254.46
G59	620315	000222	163.00	94.00	116.00	171.00	147.96	-23.04
G59	620326	000331	137.00	80.00	105.00	167.00	133.10	-33.90
G59	620335	000076	160.00	86.00	108.00	150.00	143.23	-6.77
G60	120105	001[illegible]15	304.00	217.00	123.00	212.00	263.41	51.41
G60	120192	001415	492.00	178.00	124.00	288.00	296.10	8.10
G60	120229	001468	160.00	82.00	79.00	227.00	144.40	-82.60
G60	220318	000836	304.00	147.00	122.00	200.00	221.37	21.37
G60	220352	001945	194.00	98.00	80.00	141.00	164.09	23.09
G60	220366	001900	291.00	62.00	41.00	225.00	176.27	-48.73
G60	320089	100287	174.00	101.00	94.00	122.00	158.18	36.18
G60	320432	100951	186.00	104.00	93.00	189.00	163.71	-25.29
G60	320437	101344	196.00	93.00	94.00	136.00	159.95	23.95
G60	420645	000382	904.00	84.00	59.00	472.00	370.89	-101.11
G60	520316	100611	232.00	250.00	211.00	350.00	250.87	-99.13
G60	520340	100650	132.00	229.00	170.00	280.00	212.73	-67.27
G60	520351	100675	170.00	145.00	96.00	396.00	183.24	-212.76
G61	120024	001191	240.00	172.00	144.00	163.00	214.55	51.55
G61	120053	001249	271.00	122.00	128.00	97.00	195.69	98.69

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G61	120060	001259	141.00	131.00	109.00	301.00	164.52	-136.48
G61	120077	001280	271.00	120.00	81.00	112.00	200.28	88.28
G61	120078	001281	208.00	136.00	93.00	109.00	193.57	84.57
G61	120123	001334	210.00	138.00	118.00	122.00	188.29	66.29
G61	120174	001398	192.00	128.00	56.00	75.00	184.53	109.53
G61	120322	001686	248.00	101.00	98.00	119.00	179.85	60.85
G61	120333	001698	171.00	59.00	54.00	117.00	136.92	19.92
G61	120537	001805	452.00	180.00	82.00	325.00	290.51	-34.49
G61	220072	001140	240.00	202.00	165.00	242.00	230.03	-11.97
G61	220083	001196	267.00	127.00	115.00	211.00	199.11	-11.89
G61	220085	001198	152.00	166.00	133.00	131.00	185.94	54.94
G61	220094	001209	107.00	107.00	108.00	106.00	140.01	34.01
G61	220095	001210	416.00	168.00	173.00	264.00	261.27	-2.73
G61	220096	001211	254.00	194.00	142.00	215.00	232.24	17.24
G61	220166	001373	512.00	212.00	140.00	349.00	320.60	-28.40
G61	220191	001446	351.00	248.00	192.00	228.00	287.65	59.65
G61	220292	000831	569.00	245.00	178.00	390.00	352.86	-37.14
G61	220305	001794	250.00	207.00	163.00	180.00	236.28	56.28
G61	320028	100070	320.00	88.00	57.00	156.00	198.64	42.64
G61	320032	100089	164.00	136.00	130.00	151.00	171.83	20.83
G61	320170	100380	95.00	120.00	108.00	126.00	149.06	23.06
G61	320176	100344	276.00	165.00	152.00	218.00	220.13	2.13
G61	320186	100362	135.00	114.00	114.00	114.00	151.87	37.87
G61	320271	100474	182.00	190.00	135.00	208.00	209.13	1.13
G61	320318	100593	203.00	175.00	135.00	149.00	208.19	59.19
G61	320384	100887	340.00	167.00	141.00	253.00	241.86	-11.14
G61	320413	101018	186.00	147.00	143.00	168.00	183.44	15.44
G61	320493	104115	207.00	148.00	100.00	267.00	195.64	-71.36
G61	420043	000042	232.00	177.00	118.00	148.00	214.37	70.37
G61	420062	000060	221.00	187.00	105.00	155.00	222.71	67.71
G61	420081	000083	111.00	182.00	82.00	115.00	189.59	74.59
G61	420096	000094	219.00	161.00	98.00	163.00	207.31	44.31
G61	420170	000170	271.00	210.00	114.00	206.00	250.42	44.42
G61	420187	000187	211.00	154.00	83.00	189.00	202.55	13.55
G61	420188	000188	152.00	141.00	96.00	116.00	175.44	59.44
G61	420205	000205	180.00	197.00	118.00	126.00	214.85	88.85
G61	420336	000380	252.00	174.00	92.00	220.00	225.76	5.76
G61	520039	100420	230.00	262.00	255.00	267.00	252.07	-14.93
G61	520041	100278	410.00	263.00	266.00	321.00	305.22	-15.78
G61	520097	100154	330.00	330.00	234.00	403.00	325.57	-77.43
G61	520144	100581	295.00	265.00	156.00	297.00	285.56	-11.44
G61	520152	100089	273.00	343.00	215.00	514.00	318.67	-195.33
G61	520156	100513	143.00	164.00	103.00	163.00	185.74	22.74
G61	520170	100241	613.00	256.00	303.00	434.00	357.24	-76.76
G61	520180	100282	272.00	116.00	89.00	241.00	197.19	-43.81
G61	520230	100575	679.00	298.00	241.00	548.00	409.95	-138.05
G61	520286	100565	275.00	314.00	226.00	217.00	300.45	83.45
G61	620002	000017	238.00	138.00	73.00	137.00	202.23	65.23
G61	620014	000027	231.00	94.00	89.00	107.00	172.86	65.86
G61	620027	000012	286.00	144.00	133.00	190.00	191.85	1.85

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G61	620132	000045	91.00	123.00	88.00	141.00	147.32	6.32
G61	620133	000144	227.00	207.00	142.00	162.00	231.98	69.98
G61	620137	000347	370.00	210.00	133.00	249.00	277.73	28.73
G61	620253	000114	338.00	179.00	76.00	143.00	256.50	113.50
G61	620328	000086	180.00	147.00	100.00	119.00	186.95	67.95
G61	620418	000311	354.00	182.00	102.00	179.00	259.90	80.90
G62	120007	001158	228.00	146.00	100.00	119.00	201.93	82.93
G62	120084	001288	375.00	153.00	83.00	117.00	251.06	134.06
G62	120219	001457	197.00	205.00	84.00	152.00	228.95	76.95
G62	120298	001657	140.00	189.00	131.00	148.00	196.44	48.44
G62	120311	001674	192.00	258.00	167.00	208.00	249.14	41.14
G62	120331	001675	166.00	155.00	113.00	160.00	185.97	25.97
G62	120456	001803	173.00	189.00	137.00	192.00	207.38	15.38
G62	220084	001197	425.00	201.00	120.00	147.00	290.38	143.38
G62	220103	001224	352.00	203.00	130.00	201.00	268.49	67.49
G62	220145	001338	173.00	214.00	145.00	186.00	219.66	33.66
G62	220302	001800	142.00	200.00	165.00	189.00	199.47	10.47
G62	220304	001864	265.00	305.00	238.00	255.00	290.55	35.55
G62	220319	000819	221.00	222.00	165.00	228.00	236.98	8.98
G62	320037	100168	160.00	145.00	88.00	104.00	181.24	77.24
G62	320094	100195	165.00	176.00	133.00	142.00	195.85	53.85
G62	320209	100399	133.00	131.00	129.00	197.00	159.66	-37.34
G62	320240	101314	198.00	207.00	119.00	230.00	226.14	-3.86
G62	320347	101343	198.00	167.00	119.00	217.00	203.25	-13.75
G62	320448	101340	152.00	168.00	97.00	156.00	191.58	35.58
G62	320482	101514	163.00	164.00	172.00	206.00	183.22	-22.78
G62	420261	000261	154.00	163.00	64.00	128.00	193.24	65.24
G62	420392	000491	197.00	176.00	113.00	200.00	208.50	8.50
G62	420415	000514	141.00	188.00	112.00	219.00	198.49	-20.51
G62	420437	000559	416.00	192.00	86.00	205.00	286.46	81.46
G62	420509	000667	230.00	189.00	113.00	198.00	225.62	27.62
G62	420634	000921	210.00	205.00	122.00	175.00	228.16	53.16
G62	520155	100567	317.00	248.00	168.00	302.00	280.43	-21.57
G62	520163	100541	200.00	240.00	156.00	308.00	242.05	-65.95
G62	520213	100301	221.00	211.00	170.00	205.00	229.14	24.14
G62	520236	100560	229.00	214.00	147.00	260.00	236.18	-23.82
G62	520277	100517	189.00	168.00	131.00	214.00	198.47	-15.53
G62	520282	100520	224.00	246.00	161.00	275.00	252.23	-22.77
G62	620134	000092	475.00	168.00	113.00	348.00	286.34	-61.66
G62	620135	000090	317.00	192.00	120.00	198.00	252.62	54.62
G62	620139	000284	252.00	207.00	101.00	138.00	244.53	106.53
G62	620219	000301	225.00	96.00	72.00	1006.00	173.16	-832.84
G62	620270	000293	283.00	177.00	136.00	316.00	231.43	-84.57
G62	620295	000C43	-1.00	-1.00	-1.00	254.00		
G63	420602	000863	893.00	164.00	201.00	388.00	398.26	10.26
G64	120063	001263	219.00	111.00	87.00	146.00	178.55	32.55
G64	120113	001323	99.00	113.00	89.00	124.00	143.57	19.57
G64	320010	100038	251.00	20.00	26.00	90.00	140.84	50.84
G64	320232	100404	98.00	91.00	120.00	159.00	126.19	-32.81
G64	420094	000091	288.00	155.00	118.00	212.00	221.89	9.89

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G64	620232	000141	236.00	93.00	87.00	78.00	172.80	94.80
G65	220356	001883	824.00	247.00	182.00	398.00	429.94	31.94
G65	520357	100701	386.00	94.00	173.00	439.00	207.71	-231.29
G66	120016	001167	137.00	172.00	104.00	141.00	188.64	47.64
G66	120018	001169	308.00	223.00	267.00	279.00	250.46	-28.54
G66	120037	001216	147.00	171.00	97.00	126.00	191.89	65.89
G66	120085	001289	179.00	166.00	109.00	137.00	196.98	59.98
G66	120090	001296	327.00	250.00	202.00	257.00	280.43	23.43
G66	120122	001333	274.00	227.00	130.00	207.00	259.59	52.59
G66	120126	001337	347.00	154.00	77.00	206.00	244.02	38.02
G66	120143	001356	218.00	197.00	136.00	299.00	224.01	-74.99
G66	120144	001357	182.00	169.00	91.00	127.00	165.17	38.17
G66	120228	001467	190.00	213.00	115.00	162.00	227.85	65.85
G66	220105	001229	166.00	177.00	109.00	192.00	199.72	7.72
G66	220143	001336	416.00	210.00	112.00	274.00	294.10	20.10
G66	220146	001339	770.00	262.00	227.00	597.00	417.25	-179.75
G66	220149	001345	163.00	97.00	74.00	133.00	154.95	21.95
G66	220155	001356	868.00	307.00	193.00	537.00	477.90	-59.10
G66	220160	001361	230.00	109.00	85.00	145.00	180.88	35.88
G66	220165	001370	96.00	54.00	38.00	81.00	113.42	32.42
G66	220188	001438	260.00	204.00	142.00	150.00	240.06	90.06
G66	220256	001614	225.00	140.00	147.00	138.00	190.41	52.41
G66	320179	100374	222.00	63.00	39.00	136.00	156.46	20.46
G66	320253	100707	138.00	61.00	50.00	99.00	129.94	30.94
G66	320302	101285	119.00	141.00	94.00	105.00	165.81	60.81
G66	320304	101322	82.00	144.00	74.00	147.00	159.00	12.00
G66	320342	100597	147.00	169.00	110.00	128.00	189.08	61.08
G66	320353	101149	192.00	61.00	35.00	170.00	146.76	-23.24
G66	320359	100641	104.00	122.00	94.00	86.00	149.87	63.87
G66	420049	000047	224.00	219.00	137.00	243.00	238.93	-4.07
G66	420055	000056	204.00	157.00	134.00	119.00	196.09	77.09
G66	420112	000113	324.00	249.00	138.00	256.00	286.83	30.83
G66	420390	000483	180.00	237.00	143.00	190.00	235.86	45.86
G66	420461	000609	238.00	203.00	122.00	210.00	235.34	25.34
G66	420467	000615	467.00	542.00	109.00	183.00	509.72	326.72
G66	420483	000631	213.00	202.00	95.00	195.00	230.58	35.58
G66	420493	000651	159.00	190.00	95.00	190.00	206.88	16.88
G66	420494	000652	229.00	225.00	122.00	205.00	243.20	38.20
G66	420564	000781	149.00	154.00	96.00	158.00	182.38	24.38
G66	420635	000969	315.00	112.00	65.00	277.00	210.62	-66.38
G66	520064	100614	214.00	224.00	329.00	273.00	215.26	-57.74
G66	520133	100127	290.00	308.00	364.00	355.00	284.30	-70.70
G66	520196	100677	150.00	241.00	194.00	266.00	222.99	-43.01
G66	520275	100502	380.00	330.00	264.00	401.00	336.84	-64.16
G66	520333	100664	195.00	197.00	172.00	310.00	212.68	-97.32
G66	520341	100663	216.00	271.00	353.00	302.00	241.21	-60.79
G66	520347	100667	215.00	120.00	112.00	246.00	179.69	-66.31
G66	520348	100665	224.00	181.00	147.00	273.00	214.81	-58.19
G66	520370	100775	233.00	333.00	229.00	285.00	298.94	13.94
G66	620143	000041	268.00	204.00	113.00	312.00	246.03	-65.97

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G66	620144	000207	299.00	103.00	216.00	227.00	181.53	-40.47
G66	620145	000296	104.00	223.00	179.00	396.00	200.22	-195.78
G66	620146	000325	413.00	306.00	209.00	239.00	339.06	100.06
G66	620147	000264	153.00	156.00	86.00	138.00	186.01	48.01
G66	620148	000176	158.00	134.00	61.00	160.00	177.34	17.34
G66	620149	000278	309.00	188.00	150.00	178.00	244.11	66.11
G66	620151	000302	149.00	155.00	75.00	113.00	183.10	70.10
G66	620318	000289	301.00	246.00	102.00	147.00	282.57	135.57
G66	620446	000298	103.00	112.00	98.00	100.00	143.05	43.05
G67	120073	001275	271.00	149.00	75.00	165.00	218.49	53.49
G67	120120	001331	226.00	161.00	70.00	136.00	212.86	76.86
G67	120142	001355	156.00	135.00	75.00	126.00	175.62	49.62
G67	120193	001416	299.00	227.00	126.00	210.00	267.57	57.57
G67	120203	001426	196.00	114.00	96.00	181.00	172.36	-8.64
G67	120211	001444	113.00	120.00	68.00	108.00	154.57	46.57
G67	120214	001450	156.00	137.00	104.00	164.00	173.24	9.24
G67	220144	001337	161.00	107.00	78.00	131.00	159.88	28.88
G67	220181	001415	139.00	98.00	64.00	142.00	149.60	7.60
G67	220273	000679	246.00	162.00	105.00	208.00	215.13	7.13
G67	220315	001802	55.00	19.00	20.00	56.00	82.28	26.28
G67	220372	001893	52.00	95.00	32.00	56.00	125.68	69.68
G67	320020	100055	160.00	145.00	95.00	134.00	180.37	46.37
G67	320119	100214	109.00	116.00	64.00	77.00	151.45	74.45
G67	320235	100425	105.00	120.00	69.00	552.00	152.05	-399.95
G67	320327	100686	86.00	92.00	67.00	93.00	129.74	36.74
G67	320335	100619	81.00	113.00	91.00	94.00	137.93	43.93
G67	320343	100689	119.00	134.00	98.00	112.00	161.10	49.10
G67	320364	100629	61.00	97.00	69.00	74.00	125.02	51.02
G67	420115	000118	180.00	148.00	90.00	140.00	188.79	48.79
G67	420457	000605	220.00	49.00	33.00	127.00	148.16	21.16
G67	420581	000840	112.00	157.00	90.00	120.00	173.84	53.84
G67	420590	000851	195.00	137.00	87.00	128.00	193.19	65.19
G67	420630	000916	202.00	135.00	88.00	117.00	193.96	76.96
G67	520054	100016	225.00	161.00	179.00	233.00	199.11	-33.89
G67	520092	100106	184.00	159.00	101.00	158.00	195.25	37.25
G67	520130	100096	146.00	147.00	101.00	131.00	176.64	45.64
G67	520237	100318	157.00	129.00	101.00	149.00	169.10	20.10
G67	520342	100651	140.00	128.00	89.00	172.00	164.88	-7.12
G67	520369	100706	233.00	176.00	90.00	233.00	221.52	-11.48
G67	520371	100773	238.00	192.00	103.00	215.00	231.06	16.06
G67	620154	000145	96.00	102.00	68.00	100.00	138.63	38.63
G67	620212	000171	431.00	169.00	101.00	278.00	275.25	-2.75
G67	620221	000152	140.00	155.00	65.00	115.00	184.11	69.11
G67	620237	000060	54.00	64.00	22.00	54.00	108.84	54.84
G67	620276	000292	121.00	70.00	30.00	74.00	131.53	57.53
G68	120032	001203	203.00	138.00	130.00	142.00	184.72	42.72
G68	120171	001395	230.00	113.00	84.00	229.00	183.42	-45.58
G68	120257	001559	248.00	208.00	121.00	210.00	241.47	31.47
G68	120285	001622	84.00	121.00	112.00	120.00	141.06	21.06
G68	120332	001697	623.00	139.00	140.00	412.00	309.87	-102.13

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G68	120334	001699	165.00	148.00	118.00	257.00	180.84	-76.16
G68	220104	001227	837.00	279.00	194.00	426.00	451.62	25.62
G68	220128	001307	128.00	145.00	106.00	163.00	169.43	6.43
G68	220135	001319	417.00	213.00	146.00	226.00	292.01	66.01
G68	220139	001328	252.00	169.00	123.00	179.00	218.93	39.93
G68	220151	001352	670.00	166.00	120.00	396.00	342.67	-53.33
G68	220214	001562	303.00	196.00	169.00	285.00	246.59	-38.41
G68	220363	001902	105.00	108.00	98.00	134.00	141.24	7.24
G68	220364	001885	168.00	140.00	132.00	216.00	175.19	-40.81
G68	320058	100152	1959.00	221.00	43.00	824.00	771.04	-52.96
G68	320187	100516	48.00	142.00	119.00	167.00	142.06	-24.94
G68	320205	100384	169.00	108.00	90.00	174.00	161.40	-12.60
G68	320210	100395	192.00	112.00	100.00	141.00	169.46	28.46
G68	320322	100579	80.00	104.00	104.00	125.00	130.61	5.61
G68	320370	100825	272.00	132.00	124.00	185.00	202.51	17.51
G68	320429	101291	138.00	150.00	130.00	245.00	177.30	-67.70
G68	320483	101622	97.00	44.00	41.00	153.00	107.93	-45.07
G68	420109	000110	334.00	180.00	157.00	272.00	245.92	-26.08
G68	420190	000190	213.00	163.00	147.00	181.00	200.67	19.67
G68	420191	000191	258.00	198.00	164.00	319.00	233.13	-85.87
G68	420449	000572	270.00	315.00	224.00	217.00	299.80	82.80
G68	420458	000606	273.00	135.00	105.00	206.00	206.96	0.96
G68	420580	000839	394.00	119.00	93.00	532.00	234.13	-297.87
G68	420591	000852	583.00	123.00	103.00	482.00	292.82	-189.18
G68	520055	100011	120.00	121.00	68.00	205.00	157.27	-47.73
G68	520136	100162	205.00	141.00	160.00	323.00	183.42	-139.58
G68	520143	100494	148.00	168.00	128.00	226.00	186.56	-39.44
G68	520153	100092	174.00	189.00	164.00	242.00	202.56	-39.44
G68	520182	100539	83.00	129.00	158.00	138.00	141.70	3.70
G68	520228	100608	2125.00	227.00	175.00	998.00	808.38	-189.62
G68	520298	100582	401.00	370.00	403.00	444.00	350.08	-93.92
G68	620136	000093	676.00	173.00	125.00	417.00	348.07	-68.93
G68	620140	000346	144.00	156.00	98.00	155.00	181.84	26.84
G68	620330	000069	481.00	191.00	428.00	343.00	263.13	-79.87
G68	620403	000218	281.00	143.00	126.00	223.00	211.58	-11.42
G70	120010	001159	263.00	144.00	98.00	259.00	211.45	-47.55
G70	220033	001066	146.00	71.00	174.00	109.00	121.86	12.86
G70	220338	001906	211.00	103.00	95.00	207.00	170.35	-36.65
G70	320029	100086	140.00	72.00	60.00	85.00	134.73	49.73
G70	320306	100563	106.00	85.00	77.00	139.00	130.28	-8.72
G70	320387	100798	63.00	72.00	75.00	63.00	109.82	46.82
G70	320481	101487	192.00	116.00	78.00	100.00	174.58	74.58
G70	420397	000496	145.00	135.00	108.00	217.00	168.25	-48.75
G70	420398	000497	130.00	99.00	108.00	95.00	142.08	47.08
G70	420408	000507	360.00	250.00	135.00	326.00	298.58	-27.42
G70	420444	000565	256.00	149.00	82.00	189.00	213.14	24.14
G70	420445	000566	362.00	160.00	133.00	258.00	245.22	-12.78
G70	520137	100120	192.00	74.00	85.00	189.00	148.42	-40.58
G70	520138	100558	272.00	166.00	134.00	307.00	222.96	-84.04
G70	520158	100160	591.00	234.00	169.00	417.00	353.93	-63.07

HYDROCARBONS

			KEYMODE VALUE			COMPOSITE VALUES		
MFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G70	520169	100175	180.00	197.00	220.00	235.00	202.26	-32.74
G70	620013	000026	264.00	121.00	94.00	151.00	197.19	46.19
G70	620142	000310	125.00	142.00	102.00	148.00	167.22	19.22
G70	620274	000030	94.00	152.00	85.00	93.00	166.06	73.06
G70	620321	000273	61.00	89.00	64.00	95.00	120.82	25.82
G71	120094	001301	141.00	146.00	90.00	172.00	175.90	3.90
G71	120154	001373	139.00	113.00	90.00	160.00	155.42	-4.58
G71	120217	001455	101.00	95.00	42.00	142.00	139.12	-2.88
G71	120278	001592	194.00	106.00	58.00	181.00	172.83	-8.17
G71	120309	001672	109.00	125.00	85.00	176.00	154.28	-21.72
G71	120314	001678	237.00	101.00	51.00	190.00	182.36	-7.64
G71	120318	001682	151.00	125.00	66.00	190.00	169.21	-20.79
G71	220015	000955	218.00	190.00	139.00	296.00	219.42	-76.58
G71	220046	001088	826.00	171.00	125.00	197.00	391.79	194.79
G71	220048	001090	275.00	204.00	147.00	279.00	243.94	-35.06
G71	220053	001095	173.00	96.00	63.00	154.00	158.70	4.70
G71	220069	001129	253.00	133.00	87.00	189.00	201.98	12.98
G71	220301	001872	304.00	130.00	70.00	231.00	217.55	-13.45
G71	320098	100248	113.00	131.00	92.00	160.00	158.23	-1.77
G71	320171	100342	225.00	136.00	81.00	186.00	196.14	10.14
G71	320178	100366	171.00	68.00	53.00	104.00	142.47	38.47
G71	320280	100472	177.00	118.00	70.00	160.00	172.28	12.28
G71	320415	100889	287.00	41.00	26.00	221.00	164.27	-56.73
G71	420171	000171	206.00	201.00	107.00	266.00	226.40	-39.60
G71	420469	000617	161.00	124.00	70.00	334.00	171.11	-162.89
G71	420476	000618	243.00	124.00	65.00	303.00	196.28	-106.72
G71	420497	000655	217.00	155.00	69.00	227.00	206.67	-20.33
G71	520025	100163	203.00	182.00	144.00	294.00	209.49	-84.51
G71	520028	100019	434.00	120.00	100.00	437.00	246.76	-190.24
G71	520105	100265	197.00	185.00	219.00	278.00	200.25	-77.75
G71	520142	100085	141.00	142.00	171.00	192.00	163.50	-28.50
G71	520280	100548	314.00	165.00	97.00	227.00	239.29	11.29
G71	620170	000291	200.00	107.00	43.00	166.00	175.88	9.88
G71	620171	000118	137.00	182.00	69.00	193.00	198.98	5.98
G71	620271	000111	167.00	76.00	52.00	279.00	146.21	-132.79
G71	620301	000223	220.00	129.00	109.00	195.00	186.98	-8.02
G71	620322	000031	234.00	189.00	130.00	212.00	224.72	12.72
G72	120221	001459	308.00	216.00	163.00	282.00	259.07	-22.93
G72	120236	001481	233.00	198.00	140.00	176.00	228.61	52.61
G72	220106	001230	169.00	81.00	73.00	122.00	147.23	25.23
G72	220177	001410	211.00	172.00	154.00	181.00	204.63	23.63
G72	220180	001414	124.00	228.00	148.00	216.00	213.05	-2.95
G72	320061	100127	126.00	190.00	139.00	195.00	191.87	-3.13
G72	320163	100431	144.00	136.00	67.00	109.00	173.61	64.61
G72	320352	100625	132.00	93.00	77.00	122.00	142.88	20.88
G72	320433	101096	1292.00	266.00	213.00	888.00	577.72	-310.28
G72	420589	000850	292.00	237.00	130.00	189.00	271.00	82.00
G72	520096	100302	286.00	258.00	167.00	329.00	277.29	-51.71
G72	520246	100421	192.00	208.00	152.00	300.00	220.87	-79.13
G72	620152	000167	215.00	298.00	193.00	276.00	276.91	50.91

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G72	620277	000177	115.00	137.00	90.00	133.00	162.69	29.69
G73	120102	001312	174.00	93.00	38.00	100.00	160.27	60.27
G73	120127	001338	91.00	101.00	69.00	110.00	136.41	26.41
G73	120138	001351	294.00	120.00	132.00	202.00	205.70	3.70
G73	120169	001389	31.00	28.00	19.00	65.00	80.64	15.64
G73	120225	001464	98.00	93.00	51.00	122.00	135.91	13.91
G73	220119	001262	72.00	36.00	22.00	61.00	97.37	36.37
G73	220187	001435	251.00	194.00	146.00	295.00	230.85	-64.15
G73	220323	000811	113.00	163.00	109.00	113.00	175.41	62.41
G73	220344	001892	155.00	121.00	79.00	115.00	166.39	51.39
G73	220369	001871	98.00	44.00	24.00	76.00	109.73	33.73
G73	320038	100171	81.00	36.00	24.00	59.00	99.82	40.82
G73	320051	100385	141.00	140.00	122.00	127.00	168.34	41.34
G73	320155	100302	49.00	33.00	23.00	61.00	88.55	27.55
G73	320365	100638	52.00	128.00	95.00	79.00	137.79	58.79
G73	420168	000168	163.00	111.00	80.00	149.00	162.64	13.64
G73	420290	000304	141.00	193.00	103.00	189.00	202.61	13.61
G73	420423	000522	131.00	179.00	89.00	114.00	192.91	78.91
G73	420453	000576	113.00	113.00	50.00	107.00	152.57	45.57
G73	420592	000853	287.00	84.00	89.00	145.00	182.40	37.40
G73	420629	000912	245.00	154.00	111.00	223.00	209.28	-13.72
G73	520038	100020	184.00	163.00	128.00	199.00	194.33	-4.67
G73	520059	100199	225.00	240.00	221.00	240.00	241.52	1.52
G73	520103	100178	240.00	220.00	133.00	294.00	244.08	-49.92
G73	520135	100583	142.00	165.00	100.00	213.00	186.41	-26.59
G73	620153	000299	132.00	135.00	101.00	124.00	165.22	41.22
G73	620208	000115	98.00	79.00	50.00	78.00	127.60	49.60
G73	620324	000168	179.00	165.00	113.00	176.00	195.89	-0.11
G74	120109	001319	295.00	203.00	86.00	242.00	256.85	14.85
G74	120139	001352	288.00	169.00	82.00	250.00	234.77	-15.23
G74	120150	001368	285.00	150.00	61.00	202.00	195.07	-6.93
G74	120167	001387	165.00	130.00	111.00	193.00	170.86	-22.14
G74	120259	001564	360.00	144.00	60.00	176.00	243.98	67.98
G74	120335	001700	198.00	185.00	69.00	192.00	219.05	27.05
G74	120419	001817	204.00	145.00	74.00	229.00	196.14	-32.86
G74	120532	001810	247.00	177.00	163.00	284.00	217.31	-66.69
G74	220049	001091	167.00	157.00	69.00	232.00	192.90	-39.10
G74	220050	001092	208.00	149.00	70.00	193.00	200.24	7.24
G74	220052	001094	438.00	234.00	115.00	223.00	314.77	91.77
G74	220055	001098	213.00	166.00	61.00	225.00	213.09	-11.91
G74	220056	001099	327.00	176.00	87.00	241.00	250.05	9.05
G74	220075	001153	287.00	192.00	100.00	299.00	246.10	-52.90
G74	220134	001316	217.00	213.00	122.00	239.00	235.07	-3.93
G74	320164	100367	122.00	89.00	34.00	126.00	142.18	16.18
G74	320259	100424	232.00	181.00	65.00	212.00	227.32	15.32
G74	320380	100709	221.00	176.00	75.00	194.00	219.78	25.78
G74	320403	100828	119.00	93.00	62.00	168.00	140.84	-27.16
G74	320457	101462	161.00	103.00	36.00	174.00	162.65	-11.35
G74	320458	101442	117.00	95.00	27.00	148.00	145.77	-2.23
G74	320486	101837	101.00	79.00	42.00	127.00	129.49	2.49

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G74	320492	102947	114.00	76.00	46.00	123.00	131.08	8.08
G74	420015	000026	205.00	178.00	75.00	251.00	216.19	-34.81
G74	420023	000027	354.00	163.00	75.00	278.00	251.78	-26.22
G74	420033	000007	96.00	143.00	85.00	156.00	161.23	5.23
G74	420036	000033	453.00	193.00	113.00	359.00	294.81	-64.19
G74	420050	000048	324.00	176.00	88.00	338.00	249.02	-88.98
G74	420066	000073	192.00	169.00	92.00	206.00	204.78	-1.22
G74	420068	000072	222.00	191.00	70.00	208.00	229.73	21.73
G74	420100	000101	418.00	221.00	104.00	370.00	302.31	-67.69
G74	520023	100145	283.00	237.00	217.00	445.00	257.57	-187.43
G74	520024	100110	468.00	219.00	223.00	417.00	301.40	-115.60
G74	520159	100523	201.00	199.00	129.00	225.00	220.98	-4.02
G74	520279	100529	251.00	217.00	194.00	323.00	238.78	-84.22
G74	520334	100631	404.00	223.00	149.00	494.00	293.77	-200.23
G74	520358	100695	314.00	194.00	130.00	338.00	251.69	-86.31
G74	520359	100698	298.00	236.00	134.00	266.00	271.70	5.70
G74	520364	100705	373.00	288.00	194.00	373.00	318.08	-54.92
G74	620005	000020	194.00	100.00	100.00	267.00	162.83	-104.17
G74	620163	000234	148.00	107.00	45.00	165.00	160.06	-4.94
G74	620164	000275	317.00	90.00	59.00	255.00	198.70	-56.30
G74	620166	000173	261.00	137.00	37.00	201.00	212.96	11.96
G74	620167	000121	202.00	169.00	88.00	167.00	208.27	41.27
G74	620168	000209	147.00	88.00	58.00	156.00	146.71	-9.29
G74	620169	000267	212.00	118.00	52.00	113.00	184.99	71.99
G74	620409	000322	219.00	161.00	89.00	201.00	208.42	7.42
G74	620410	000319	201.00	143.00	63.00	135.00	195.39	60.39
G75	120121	001332	310.00	211.00	135.00	196.00	260.11	64.11
G75	120323	001687	133.00	145.00	108.00	148.00	170.68	22.68
G75	120405	001718	145.00	203.00	151.00	187.00	203.91	16.91
G75	120412	001758	180.00	191.00	142.00	201.00	208.27	7.27
G75	120413	001799	235.00	243.00	165.00	268.00	253.23	-14.77
G75	120415	001787	215.00	222.00	131.00	230.00	238.78	8.78
G75	120420	001719	172.00	133.00	115.00	176.00	174.27	-1.73
G75	120424	001756	311.00	228.00	159.00	271.00	267.69	-3.31
G75	220003	000931	128.00	143.00	109.00	143.00	167.86	24.86
G75	220035	001068	166.00	161.00	130.00	146.00	187.49	41.49
G75	220058	001102	281.00	99.00	82.00	127.00	190.51	63.51
G75	220060	001105	849.00	191.00	171.00	158.00	405.05	247.05
G75	220061	001106	136.00	173.00	125.00	195.00	186.35	-8.65
G75	220068	001122	210.00	149.00	118.00	138.00	194.92	56.92
G75	220070	001130	112.00	165.00	124.00	136.00	174.47	38.47
G75	220077	001175	265.00	207.00	159.00	186.00	241.27	55.27
G75	220078	001176	145.00	121.00	114.00	193.00	159.08	-33.92
G75	220079	001190	175.00	140.00	121.00	158.00	178.64	20.64
G75	220122	001288	153.00	156.00	143.00	145.00	178.98	33.98
G75	320022	100058	277.00	220.00	149.00	193.00	253.93	60.93
G75	320103	100504	158.00	110.00	81.00	131.00	160.42	29.42
G75	320234	100441	143.00	158.00	119.00	129.00	180.15	51.15
G75	320264	100492	194.00	162.00	127.00	153.00	196.85	43.85
G75	320314	100550	118.00	96.00	91.00	91.00	138.77	47.77

AC4A

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G75	320320	100576	296.00	139.00	103.00	205.00	216.50	11.50
G75	320331	100601	155.00	140.00	117.00	143.00	173.15	30.15
G75	320332	101362	154.00	124.00	87.00	101.00	166.91	65.91
G75	320360	100867	239.00	186.00	133.00	188.00	224.04	36.04
G75	320366	100706	112.00	133.00	115.00	131.00	156.30	25.30
G75	420082	000082	172.00	191.00	150.00	149.00	204.89	55.89
G75	420125	000123	256.00	188.00	137.00	180.00	229.84	49.84
G75	420217	000217	209.00	177.00	178.00	175.00	210.25	35.25
G75	420262	000262	224.00	187.00	130.00	157.00	220.52	63.52
G75	420389	000488	239.00	233.00	147.00	243.00	250.38	7.38
G75	420448	000569	208.00	210.00	155.00	214.00	226.50	12.50
G75	420464	000612	178.00	180.00	123.00	143.00	203.39	60.39
G75	420501	000659	340.00	248.00	136.00	291.00	291.26	0.26
G75	420502	000660	207.00	172.00	121.00	149.00	207.50	58.50
G75	420504	000662	195.00	176.00	123.00	201.00	206.07	5.07
G75	420588	000849	623.00	152.00	104.00	194.00	322.14	128.14
G75	520026	100542	198.00	171.00	130.00	157.00	203.10	46.10
G75	520052	100012	304.00	231.00	173.00	250.00	265.68	15.68
G75	520184	100748	294.00	248.00	181.00	238.00	271.93	-26.07
G75	520194	100473	208.00	168.00	140.00	178.00	203.05	25.05
G75	520195	100531	196.00	162.00	126.00	177.00	197.57	20.57
G75	520278	100522	226.00	227.00	189.00	260.00	239.04	-20.96
G75	520281	100516	153.00	92.00	91.00	178.00	146.84	-31.16
G75	520283	100556	210.00	213.00	147.00	222.00	223.89	7.89
G75	520287	100550	153.00	200.00	146.00	194.00	205.11	11.11
G75	520297	100574	153.00	211.00	169.00	199.00	210.70	11.70
G75	620155	000028	236.00	194.00	137.00	171.00	227.47	56.47
G75	620156	000252	216.00	189.00	139.00	169.00	218.22	49.22
G75	620157	000261	128.00	173.00	137.00	109.00	182.47	73.47
G75	620159	000271	187.00	106.00	85.00	155.00	166.20	11.20
G75	620160	000309	141.00	121.00	96.00	110.00	160.10	50.10
G75	620161	000162	689.00	207.00	153.00	264.00	368.99	104.99
G75	620162	000122	237.00	184.00	159.00	175.00	219.03	44.03
G75	620241	000277	249.00	165.00	141.00	144.00	213.40	69.40
G75	620252	000046	249.00	207.00	137.00	193.00	239.19	46.19
G75	620423	000303	174.00	222.00	133.00	173.00	226.26	53.26
G77	120240	001510	145.00	143.00	77.00	114.00	176.90	62.90
G77	120241	001518	176.00	108.00	73.00	164.00	165.59	1.59
G77	120316	001680	211.00	205.00	130.00	174.00	227.47	53.47
G77	120317	001681	132.00	124.00	90.00	150.00	159.95	9.95
G77	120403	001724	116.00	74.00	63.00	130.00	128.38	-1.62
G77	220089	001203	1927.00	1818.00	224.00	129.00	1701.38	1572.38
G77	220123	001302	226.00	133.00	83.00	179.00	198.00	19.00
G77	220124	001303	265.00	195.00	112.00	181.00	233.84	52.84
G77	220125	001304	188.00	130.00	83.00	116.00	181.20	65.20
G77	220126	001305	210.00	127.00	81.00	167.00	186.23	19.23
G77	220129	001311	213.00	149.00	98.00	147.00	198.28	51.28
G77	220130	001312	289.00	175.00	124.00	164.00	233.50	69.50
G77	220132	001314	192.00	133.00	81.00	127.00	184.45	57.45
G77	320083	100215	165.00	162.00	97.00	137.00	191.86	54.86

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G77	320128	100293	135.00	133.00	99.00	107.00	168.78	61.78
G77	320169	100298	185.00	145.00	95.00	146.00	187.86	41.86
G77	320206	100402	224.00	139.00	104.00	162.00	194.81	32.81
G77	320266	100724	229.00	154.00	113.00	172.00	204.24	32.24
G77	320296	101739	134.00	153.00	90.00	152.00	178.02	26.02
G77	320348	100603	182.00	154.00	105.00	114.00	191.15	77.15
G77	320408	101071	148.00	129.00	73.00	129.00	169.85	40.85
G77	420149	000149	190.00	144.00	99.00	158.00	188.26	30.26
G77	420157	000157	230.00	162.00	73.00	198.00	214.29	26.29
G77	420402	000501	170.00	147.00	83.00	155.00	186.05	31.05
G77	420459	000607	192.00	163.00	77.00	139.00	203.02	64.02
G77	420465	000613	101.00	179.00	186.00	160.00	171.96	11.96
G77	420490	000637	117.00	137.00	67.00	118.00	166.13	48.13
G77	420579	000838	155.00	146.00	65.00	136.00	183.18	47.18
G77	520008	100001	307.00	262.00	134.00	198.00	290.06	92.06
G77	520009	100002	169.00	237.00	151.00	259.00	232.78	-26.22
G77	520116	100046	178.00	225.00	118.00	222.00	231.11	9.11
G77	520117	100052	192.00	191.00	137.00	223.00	212.48	-10.52
G77	520119	100054	249.00	236.00	157.00	265.00	254.19	-10.81
G77	520120	100051	205.00	183.00	146.00	213.00	210.45	-2.55
G77	520121	100053	255.00	220.00	176.00	289.00	244.01	-44.99
G77	620173	000125	161.00	180.00	94.00	155.00	201.88	46.88
G77	620174	000112	173.00	117.00	89.00	257.00	168.14	-88.86
G77	620257	000008	141.00	127.00	70.00	107.00	166.92	59.92
G77	620262	000102	237.00	40.00	33.00	183.00	147.83	-35.17
G77	620294	000088	333.00	688.00	223.00	485.00	543.47	58.47
G77	620296	000078	142.00	51.00	30.00	111.00	126.38	15.38
G77	620317	000138	184.00	151.00	102.00	141.00	190.31	49.31
G78	320502	104125	180.00	104.00	56.00	164.00	166.48	2.48
G78	520239	100316	252.00	209.00	143.00	285.00	240.55	-44.45
V82	120071	001273	150.00	110.00	145.00	264.00	150.13	-113.87
V82	120083	001286	128.00	134.00	170.00	159.00	154.91	-4.09
V82	120197	001420	91.00	74.00	140.00	220.00	111.39	-108.61
V82	220073	001138	105.00	132.00	122.00	178.00	152.74	-25.26
V82	220080	001191	302.00	123.00	123.00	273.00	206.19	-66.81
V82	220137	001323	157.00	73.00	104.00	185.00	138.61	-46.39
V82	320153	100388	84.00	106.00	94.00	194.00	134.24	-59.76
V82	320217	100612	76.00	56.00	66.00	180.00	105.18	-74.82
V82	320363	101068	42.00	48.00	124.00	157.00	83.03	-73.97
V82	420200	000200	154.00	130.00	169.00	275.00	160.41	-114.59
V82	420393	000492	278.00	137.00	197.00	315.00	198.31	-116.69
V82	420413	000518	105.00	100.00	127.00	275.00	132.85	-142.15
V82	420577	000836	115.00	103.00	129.00	192.00	140.41	-51.59
V82	520050	100013	135.00	128.00	132.00	367.00	158.08	-208.92
V82	520080	100197	281.00	206.00	192.00	457.00	242.58	-214.42
V82	520215	100483	136.00	108.00	134.00	208.00	146.09	-61.91
V82	620179	000096	210.00	137.00	116.00	164.00	187.94	23.94
V82	620180	000068	167.00	112.00	126.00	131.00	158.77	27.77
V82	620182	000109	148.00	111.00	152.00	257.00	149.27	-107.73
V83	120021	001199	118.00	99.00	91.00	222.00	140.58	-81.42

HYDROCARBONS

			KEYMODE VALUE			COMPOSITE VALUES		
MFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
V83	120045	001234	116.00	75.00	91.00	148.00	124.32	-23.68
V83	120056	001253	90.00	82.00	89.00	209.00	122.20	-86.80
V83	120057	001254	239.00	97.00	146.00	672.00	168.83	-503.17
V83	120059	001258	663.00	142.00	153.00	362.00	321.31	-40.69
V83	120061	001260	232.00	93.00	121.00	389.00	167.41	-221.59
V83	120064	001264	61.00	90.00	105.00	192.00	116.96	-75.04
V83	120065	001265	98.00	111.00	103.00	179.00	140.34	-38.66
V83	120066	001266	106.00	93.00	85.00	228.00	110.02	-117.98
V83	120068	001268	115.00	75.00	97.00	202.00	124.48	-77.52
V83	120069	001269	518.00	59.00	110.00	285.00	233.94	-51.06
V83	120072	001274	127.00	105.00	129.00	315.00	142.80	-172.20
V83	120075	001278	183.00	118.00	131.00	516.00	166.56	-349.44
V83	120106	001316	90.00	114.00	126.00	131.00	130.91	-54.09
V83	120116	001326	93.00	91.00	97.00	276.00	127.53	-148.47
V83	120135	001348	223.00	116.00	102.00	452.00	180.91	-271.09
V83	120209	001440	200.00	114.00	116.00	241.00	171.09	-69.91
V83	220025	001043	327.00	116.00	138.00	791.00	207.61	-583.39
V83	220026	001045	296.00	151.00	123.00	368.00	221.26	-146.74
V83	220047	001089	438.00	196.00	143.00	369.00	288.43	-80.57
V83	220059	001103	59.00	106.00	106.00	403.00	121.66	-281.34
V83	220092	001207	203.00	212.00	130.00	458.00	228.39	-229.61
V83	220173	001388	152.00	171.00	140.00	418.00	188.09	-229.91
V83	220183	001419	219.00	235.00	224.00	473.00	236.34	-236.66
V83	220189	001443	138.00	92.00	137.00	507.00	136.68	-370.32
V83	220190	001445	186.00	130.00	113.00	269.00	176.90	-92.10
V83	220197	001466	152.00	149.00	146.00	464.00	174.09	-289.91
V83	220200	001491	112.00	112.00	100.00	381.00	145.50	-235.50
V83	220205	001524	120.00	185.00	187.00	487.00	181.14	-305.86
V83	220206	001521	172.00	215.00	145.00	672.00	219.96	-452.04
V83	220295	000827	259.00	142.00	137.00	324.00	203.03	-120.97
V83	220314	001806	216.00	158.00	138.00	363.00	199.67	-163.33
V83	220317	001877	158.00	190.00	141.00	284.00	201.20	-82.80
V83	220373	001911	244.00	136.00	116.00	244.00	197.52	-46.48
V83	320007	100032	110.00	90.00	85.00	194.00	133.50	-60.50
V83	320014	100049	72.00	116.00	78.00	384.00	138.65	-245.35
V83	320017	100052	225.00	140.00	117.00	660.00	194.11	-465.89
V83	320034	100257	83.00	159.00	172.00	223.00	153.78	-69.22
V83	320037	100198	171.00	146.00	106.00	217.00	182.91	-34.09
V83	320045	100147	186.00	119.00	103.00	559.00	171.51	-387.49
V83	320055	100199	85.00	134.00	116.00	227.00	151.71	-75.29
V83	320091	100200	120.00	157.00	135.00	202.00	170.69	-31.31
V83	320095	100201	161.00	149.00	120.00	229.00	180.00	-49.00
V83	320097	100148	103.00	145.00	71.00	208.00	166.26	-41.74
V83	320101	100244	126.00	158.00	170.00	330.00	168.77	-161.23
V83	320108	100245	97.00	71.00	109.00	308.00	115.20	-192.80
V83	320130	100106	119.00	120.00	120.00	560.00	154.77	-405.23
V83	320131	100107	94.00	201.00	133.00	327.00	189.65	-137.35
V83	320132	100108	120.00	166.00	118.00	206.00	178.20	-27.80
V83	320277	100464	218.00	130.00	129.00	276.00	184.51	-91.49
V83	420034	000012	115.00	168.00	135.00	272.00	175.81	-96.19

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V83	420064	000066	348.00	191.00	97.00	400.00	264.14	-135.86
V83	420103	000104	98.00	136.00	119.00	245.00	153.42	-91.58
V83	420106	000107	225.00	250.00	141.00	192.00	257.41	65.41
V83	420152	000152	203.00	207.00	142.00	276.00	226.00	-50.00
V83	420162	000162	182.00	196.00	80.00	394.00	219.53	-174.47
V83	420164	000164	105.00	243.00	118.00	429.00	220.09	-208.91
V83	420166	000166	112.00	163.00	99.00	189.00	176.35	-12.65
V83	420172	000172	265.00	366.00	160.00	644.00	336.92	-307.08
V83	420180	000180	187.00	227.00	106.00	494.00	236.49	-257.51
V83	420184	000184	120.00	106.00	103.00	229.00	143.91	-85.09
V83	420193	000193	160.00	253.00	111.00	237.00	243.45	6.45
V83	420197	000197	133.00	115.00	98.00	224.00	153.85	-70.15
V83	420199	000199	134.00	135.00	83.00	218.00	168.04	-49.96
V83	420203	000203	146.00	119.00	97.00	217.00	160.27	-56.73
V83	420466	000614	107.00	156.00	126.00	302.00	167.30	-134.70
V83	520011	100007	303.00	269.00	146.00	450.00	291.60	-158.40
V83	520040	100169	239.00	382.00	160.00	685.00	338.77	-346.23
V83	520042	100189	212.00	383.00	174.00	628.00	329.56	-298.44
V83	520043	100170	271.00	289.00	229.00	473.00	283.82	-189.18
V83	520045	100024	154.00	189.00	219.00	395.00	189.78	-205.22
V83	520046	100426	567.00	374.00	185.00	602.00	429.10	-172.90
V83	520047	100063	265.00	296.00	187.00	442.00	291.42	-150.58
V83	520048	100147	180.00	318.00	149.00	430.00	283.91	-146.09
V83	520049	100205	92.00	153.00	146.00	276.00	158.53	-117.47
V83	520053	100023	137.00	172.00	121.00	400.00	186.54	-213.46
V83	520062	100132	343.00	447.00	183.00	582.00	406.23	-175.77
V83	520079	100028	107.00	141.00	146.00	338.00	155.80	-182.20
V83	520084	100279	149.00	193.00	122.00	255.00	202.66	-52.34
V83	520088	100039	136.00	139.00	146.00	683.00	163.28	-519.72
V83	520191	100259	238.00	309.00	206.00	382.00	288.82	-93.18
V83	520319	100617	304.00	325.00	164.00	288.00	323.41	35.41
V83	520330	100627	234.00	193.00	127.00	340.00	227.50	-112.50
V83	620011	000002	70.00	101.00	105.00	362.00	125.68	-236.32
V83	620015	000116	96.00	89.00	69.00	252.00	130.68	-121.32
V83	620028	000021	114.00	118.00	138.00	292.00	145.03	-146.97
V83	620031	000022	381.00	129.00	173.00	435.00	227.30	-207.70
V83	620175	000110	270.00	150.00	136.00	457.00	211.27	-245.73
V83	620177	000042	105.00	73.00	93.00	242.00	120.78	-121.22
V83	620181	000313	384.00	118.00	94.00	525.00	231.32	-293.68
V83	620183	000029	129.00	81.00	120.00	210.00	129.45	-80.55
V83	620185	000143	113.00	148.00	124.00	322.00	164.53	-157.47
V83	620187	000159	147.00	148.00	90.00	386.00	178.90	-207.10
V83	620189	000177	383.00	165.00	122.00	423.00	255.87	-167.13
V83	620190	000265	243.00	121.00	98.00	400.00	190.40	-209.60
V83	620193	000154	162.00	137.00	125.00	284.00	173.66	-110.34
V83	620205	000158	180.00	136.00	122.00	341.00	177.61	-163.39
V83	620413	000320	203.00	143.00	110.00	331.00	190.19	-140.81
V83	620422	000295	165.00	227.00	181.00	467.00	220.65	-246.35
V83	620436	000337	561.00	149.00	150.00	556.00	296.09	-259.91
V83	620445	000344	226.00	148.00	135.00	475.00	197.01	-277.99

HYDROCARBONS

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V84	320063	100165	167.00	185.00	164.00	246.00	198.05	-47.95

TABLE F-3

Carbon Monoxide

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	120092	001298	1.86	0.12	0.17	0.54	0.91	0.37
A01	120100	001310	0.40	0.14	0.14	0.48	0.62	0.14
A01	120222	001460	6.87	0.23	0.44	2.00	2.04	0.04
A01	120243	001520	10.85	2.45	0.12	2.83	3.96	1.13
A01	120254	001554	8.81	0.09	0.15	2.36	2.29	-0.07
A01	120256	001556	7.09	0.42	0.16	2.31	2.12	-0.19
A01	120265	001571	6.73	0.12	0.14	1.69	1.88	0.19
A01	120273	001583	0.55	0.15	0.16	0.47	0.66	0.19
A01	120280	001599	0.41	0.12	0.17	0.48	0.62	0.14
A01	220041	001083	2.15	0.11	0.12	1.16	0.95	-0.21
A01	220081	001192	8.93	0.12	0.11	2.50	2.32	-0.18
A01	220110	001251	1.68	0.11	0.13	0.94	0.86	-0.08
A01	220215	001563	1.40	0.17	0.13	1.18	0.84	-0.34
A01	220233	001589	1.24	0.25	0.13	0.86	0.85	-0.01
A01	220234	001590	2.32	0.12	0.15	0.61	1.00	0.39
A01	220268	001652	0.92	0.19	0.20	1.93	0.77	-1.16
A01	220282	001745	3.17	0.17	0.13	1.03	1.19	0.16
A01	220322	001809	2.01	0.12	0.13	1.34	0.93	-0.41
A01	220383	002171	1.79	0.68	0.38	1.57	1.25	-0.32
A01	320076	100219	5.11	0.10	0.11	1.85	1.54	-0.31
A01	320114	100274	2.31	0.07	0.09	0.77	0.96	0.19
A01	320145	100304	5.77	0.07	0.09	2.12	1.65	-0.47
A01	320166	100364	0.77	0.10	0.10	0.40	0.67	0.27
A01	320252	100475	1.14	0.08	0.09	0.46	0.73	0.27
A01	320297	100912	2.14	0.13	0.11	0.68	0.96	0.28
A01	320309	101408	7.30	0.31	0.09	2.11	2.09	-0.02
A01	320382	100796	10.47	0.38	0.11	3.22	2.77	-0.45
A01	320490	102239	1.37	0.18	0.12	1.16	0.83	-0.33
A01	420059	000061	3.51	0.64	0.09	1.20	1.50	0.30
A01	420091	000098	1.14	0.05	0.65	0.38	0.84	0.46
A01	420359	000424	1.60	0.07	0.10	0.63	0.82	0.19
A01	420428	000527	2.56	0.56	0.46	0.55	1.36	0.81
A01	420463	000611	5.04	0.08	0.09	1.50	1.51	0.01
A01	420478	000639	8.44	0.21	0.07	2.24	2.26	0.02
A01	420487	000635	6.40	0.17	0.08	2.01	1.83	-0.18
A01	420521	000694	3.71	0.07	0.09	1.22	1.24	0.02
A01	420522	000695	0.27	0.12	1.12	0.62	0.82	0.20
A01	520014	100563	4.85	1.79	0.63	2.42	2.52	0.10
A01	520128	100511	2.55	2.05	2.13	3.86	2.56	-1.30
A01	520129	100465	0.37	0.41	0.19	2.84	0.77	-2.07
A01	520139	100564	5.06	2.27	0.66	2.93	2.83	-0.10
A01	520150	100492	0.51	0.05	0.12	1.11	0.59	-0.52
A01	520185	100585	3.87	0.14	0.26	1.45	1.35	-0.10
A01	520308	100596	3.58	0.27	0.05	1.18	1.31	0.13
A01	520307	100594	2.19	0.17	0.15	0.99	1.00	0.01
A01	520323	100614	2.91	2.70	1.20	3.45	2.76	-0.69
A01	620033	000074	2.60	0.11	0.13	0.59	1.05	0.46
A01	620034	000210	3.68	0.26	0.19	1.30	1.36	0.06
A01	620215	000066	0.09	0.11	0.13	0.22	0.54	0.32
A01	620233	000100	0.15	0.18	0.18	0.24	0.60	0.36

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	620240	000132	8.71	0.18	0.33	1.94	2.36	0.42
A01	620244	000137	6.16	0.15	0.14	2.49	1.78	-0.71
A01	620249	000056	2.68	0.22	0.19	1.11	1.14	0.03
A01	620261	000193	6.15	0.13	0.14	2.43	1.77	-0.66
A01	620264	000134	2.40	0.13	0.15	0.98	1.02	0.04
A01	620288	000257	11.03	4.80	0.84	4.46	5.44	0.98
A01	620291	000099	0.20	0.17	0.17	0.42	0.61	0.19
A01	620292	000155	3.59	0.19	0.34	0.88	1.34	0.46
A01	620368	000188	2.57	0.15	0.20	0.76	1.08	0.32
A02	120198	001421	2.95	0.15	0.22	1.15	1.16	0.01
A02	120401	001715	7.86	1.99	2.90	5.40	3.78	-1.62
A02	220036	001069	0.13	0.16	0.17	0.45	0.59	0.14
A02	320100	100275	2.10	0.12	0.15	0.60	0.96	0.36
A02	320310	100548	3.65	0.23	0.12	2.17	1.32	-0.85
A02	420173	000173	2.46	0.32	3.90	2.53	2.03	-0.50
A02	420510	000668	0.79	0.10	1.12	1.42	0.91	-0.51
A02	520315	100610	2.53	0.68	0.27	3.51	1.37	-2.14
A02	620035	000204	0.15	0.23	1.19	0.89	0.87	-0.02
A02	620229	000174	0.20	0.18	0.17	0.49	0.61	0.12
A02	620350	000136	0.66	0.18	0.19	1.56	0.71	-0.85
A02	620366	000172	0.16	0.18	0.19	0.47	0.61	0.14
A03	120242	001519	5.58	1.40	1.03	3.12	2.56	-0.56
A03	120274	001584	6.69	0.17	0.37	2.18	1.96	-0.22
A03	220327	000822	0.95	0.13	0.99	1.57	0.93	-0.64
A03	220370	001884	6.16	0.28	1.02	2.35	2.06	-0.29
A03	320312	101435	2.31	1.12	0.17	1.45	1.54	0.09
A03	320392	101287	6.12	3.27	0.30	2.98	3.50	0.52
A03	420264	000264	5.66	6.26	0.16	3.81	4.99	1.18
A03	420386	000483	3.44	0.88	0.53	1.80	1.73	-0.07
A03	420425	000524	1.33	0.09	0.08	0.58	0.77	0.19
A03	520067	100057	1.28	0.58	4.01	2.86	1.96	-0.90
A03	520312	100605	2.38	1.15	5.92	3.13	2.95	-0.18
A05	120173	001397	3.17	0.18	0.45	0.84	1.27	0.43
A05	120245	001522	0.26	0.30	0.17	0.39	0.69	0.30
A05	120246	001524	1.41	0.27	0.18	0.66	0.90	0.24
A05	220131	001313	1.43	0.30	0.20	0.93	0.93	-0.00
A05	220307	001804	2.49	0.52	1.05	1.26	1.46	0.20
A05	220308	001859	0.35	0.33	0.38	1.17	0.77	-0.40
A05	220384	002124	0.42	0.13	0.21	0.50	0.64	0.14
A05	320147	100376	1.40	0.17	0.18	0.86	0.85	-0.01
A05	320158	101358	4.59	0.17	0.17	1.30	1.49	0.19
A05	320369	100646	0.20	0.17	0.15	0.47	0.60	0.13
A05	420410	000509	6.71	0.17	0.14	1.51	1.91	0.40
A05	420413	000512	0.48	0.12	0.10	0.47	0.62	0.15
A05	420460	000608	0.86	0.27	0.12	0.77	0.78	0.01
A05	420462	000610	1.58	0.33	0.14	0.66	0.96	0.30
A05	520015	100017	3.28	0.64	0.89	1.56	1.65	0.09
A05	520173	100432	2.68	0.76	1.20	1.98	1.67	-0.31
A05	520211	100521	4.49	1.34	0.61	2.56	2.20	-0.36
A05	520310	100595	5.29	1.03	0.96	2.12	2.28	0.16

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A05	620023	000003	1.39	0.20	0.17	0.76	0.86	0.10
A05	620204	000059	1.85	0.26	0.43	1.01	1.05	0.04
A05	620220	000263	1.11	0.23	0.21	0.64	0.83	0.19
A05	620223	000127	2.94	0.20	0.19	0.89	1.18	0.29
A05	620349	000274	0.23	0.24	0.22	0.43	0.66	0.23
A05	620370	000206	0.21	0.30	0.20	0.38	0.69	0.31
A07	120008	001152	1.54	0.19	0.36	0.88	0.93	0.05
A07	120044	001231	0.11	0.59	0.40	0.88	0.87	-0.01
A07	120239	001499	4.06	0.30	0.41	1.64	1.51	-0.13
A07	220286	001807	0.11	0.26	0.70	0.49	0.76	0.27
A07	220376	001915	6.77	1.80	1.66	3.50	3.16	-0.34
A07	320491	102387	3.77	0.52	0.57	1.58	1.61	0.03
A07	420248	000248	0.35	0.28	0.30	0.58	0.73	0.15
A07	520314	100603	4.72	1.69	0.93	2.28	2.52	0.24
A07	620362	000194	0.15	0.19	0.38	0.43	0.66	0.23
A07	620371	000184	0.55	0.18	0.22	0.46	0.69	0.23
A08	520304	100591	2.16	0.75	0.95	1.97	1.50	-0.47
A09	320350	100623	7.01	1.12	0.48	3.40	2.56	-0.84
A09	420394	000493	3.85	0.24	0.22	1.63	1.39	-0.24
A09	520068	100514	0.40	1.22	1.55	2.20	1.54	-0.66
A09	620036	000197	6.02	1.18	0.40	2.53	2.37	-0.16
A09	620192	000199	0.13	0.18	0.70	0.33	0.72	0.39
A09	620373	000280	0.13	0.27	0.54	0.28	0.73	0.45
A10	220298	001789	0.67	0.15	0.71	1.21	0.82	-0.39
A10	320362	100642	0.10	0.13	0.22	0.26	0.58	0.32
A10	520243	100496	4.43	1.16	2.72	3.14	2.60	-0.54
A10	620376	000237	1.43	0.25	0.54	1.02	0.98	-0.04
A10	620417	000202	1.29	0.57	0.65	1.17	1.16	-0.01
A11	120304	001663	3.26	0.51	0.32	1.88	1.44	-0.44
C10	120156	001375	5.17	1.30	0.85	2.52	2.38	-0.14
C10	120258	001560	1.99	0.19	0.88	1.71	1.15	-0.56
C10	120427	001757	6.54	0.97	0.98	2.20	2.50	0.30
C10	120429	001794	4.72	1.68	1.57	2.58	2.66	0.08
C10	220275	001729	0.45	1.84	0.49	1.40	1.63	0.23
C10	220309	001798	0.14	0.23	5.23	0.50	1.84	1.34
C10	220328	000818	2.56	0.58	0.35	2.12	1.34	-0.78
C10	220334	002085	0.40	2.79	0.92	2.97	2.24	-0.73
C10	220359	001904	0.48	1.08	0.48	2.38	1.23	-1.15
C10	320208	100396	3.69	0.25	0.54	1.62	1.44	-0.18
C10	320358	100647	0.55	0.47	0.57	0.73	0.93	0.20
C10	420021	000029	3.07	0.49	0.85	1.76	1.52	-0.24
C10	420498	000656	1.77	0.22	1.45	1.08	1.25	0.17
C10	420506	000664	7.56	0.26	2.08	2.32	2.59	0.27
C10	420550	000756	0.12	0.53	0.25	0.57	0.80	0.23
C10	520151	100118	0.70	0.17	7.52	4.33	2.46	-1.87
C10	520264	100577	1.73	1.27	6.77	4.06	3.08	-0.98
C10	520302	100584	2.61	4.06	6.14	4.32	4.62	0.30
C10	520317	100612	0.25	3.43	3.70	3.53	3.22	-0.31
C10	620043	000262	6.98	0.14	0.14	1.86	1.94	0.08
C10	620250	000035	0.18	0.57	0.59	0.71	0.92	0.21

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C10	620286	000201	4.77	0.84	0.42	2.27	1.94	-0.33
C10	620431	000333	0.19	1.99	0.90	1.70	1.76	0.06
C11	120035	001212	2.95	0.31	0.54	1.73	1.32	-0.41
C11	120067	001267	1.41	0.25	0.36	0.76	0.94	0.18
C11	120070	001270	10.29	0.86	1.23	3.28	3.26	-0.02
C11	120081	001284	10.05	1.81	1.07	4.36	3.68	-0.68
C11	120082	001285	5.96	0.91	0.65	1.98	2.28	0.30
C11	120088	001294	2.11	0.20	0.46	1.11	1.07	-0.04
C11	120097	001307	2.43	0.68	0.67	1.51	1.45	-0.06
C11	120117	001327	3.49	0.77	1.03	2.49	1.80	-0.69
C11	120124	001335	1.34	0.27	0.52	1.01	0.97	-0.04
C11	120134	001347	7.70	1.01	0.97	2.53	2.76	0.23
C11	120136	001349	8.85	0.48	0.40	2.95	2.56	-0.39
C11	120140	001353	10.69	4.06	1.09	4.47	5.03	0.56
C11	120157	001376	2.86	0.22	0.48	1.22	1.24	0.02
C11	120206	001437	2.69	0.37	0.56	1.12	1.31	0.19
C11	120237	001482	2.40	0.38	0.37	1.16	1.21	0.05
C11	220039	001075	3.97	3.04	0.30	1.95	2.94	0.99
C11	220111	001239	2.60	0.13	0.78	1.66	1.21	-0.45
C11	220150	001348	0.50	0.14	0.42	1.27	0.71	-0.56
C11	220164	001367	6.69	0.12	0.30	2.68	1.91	-0.77
C11	220194	001458	6.35	1.54	0.49	2.14	2.66	0.52
C11	220217	001569	3.33	0.17	0.50	1.71	1.31	-0.40
C11	220223	001581	6.33	0.24	0.18	2.22	1.88	-0.34
C11	220225	001578	9.12	1.88	0.55	3.61	3.41	-0.20
C11	220229	001584	3.05	0.18	0.50	1.37	1.26	-0.11
C11	220230	001585	6.19	0.61	0.25	1.96	2.06	0.10
C11	220236	001592	5.71	0.33	0.14	2.08	1.79	-0.29
C11	220252	001609	0.13	0.48	0.32	0.85	0.79	-0.06
C11	220262	001631	0.30	0.58	0.77	0.81	0.99	0.18
C11	220267	001646	4.83	0.14	0.46	1.91	1.59	-0.32
C11	220281	001748	1.71	1.47	0.41	1.21	1.67	0.46
C11	220382	002069	3.17	0.32	1.12	1.51	1.51	-0.00
C11	320003	100019	1.27	0.06	0.20	0.79	0.77	-0.02
C11	320006	100024	7.69	3.28	5.98	5.67	5.18	-0.49
C11	320012	100043	9.61	0.22	0.33	2.72	2.56	-0.16
C11	320053	100151	6.79	0.08	0.17	2.04	1.88	-0.16
C11	320060	100125	6.33	2.52	0.71	3.39	3.23	-0.16
C11	320112	100246	2.18	0.28	0.71	1.54	1.19	-0.35
C11	320243	100418	0.33	0.08	0.14	0.74	0.58	-0.16
C11	320247	100429	4.51	2.57	0.89	2.62	2.94	0.32
C11	320270	100486	4.09	0.10	0.65	1.41	1.46	0.05
C11	320333	100582	3.77	0.11	0.40	1.65	1.34	-0.31
C11	320334	100583	5.14	0.71	0.56	2.15	1.98	-0.17
C11	320434	101121	0.17	0.30	0.13	0.33	0.66	0.33
C11	320439	101142	0.50	0.38	0.30	1.89	0.81	-1.08
C11	420123	000124	0.54	0.39	0.93	1.17	0.97	-0.20
C11	420185	000185	7.90	0.47	1.52	3.64	2.64	-1.00
C11	420207	000207	6.89	3.00	2.00	2.81	3.91	1.10
C11	420325	000349	7.44	1.87	0.84	2.31	3.14	0.83

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
C11	420383	000479	3.23	0.48	0.39	1.25	1.43	0.18
C11	420388	000487	9.69	0.31	0.25	2.87	2.61	-0.26
C11	420391	000490	6.58	0.32	0.34	1.83	2.01	0.18
C11	420403	000502	3.79	0.31	0.56	1.66	1.50	-0.16
C11	420420	000519	10.47	1.94	1.27	4.57	3.89	-0.68
C11	420430	000529	11.52	0.27	0.36	3.69	2.98	-0.71
C11	420443	000564	6.57	1.42	1.06	2.94	2.77	-0.17
C11	420456	000604	11.54	0.52	0.33	4.17	3.11	-1.06
C11	420470	000619	5.69	0.37	0.16	1.97	1.81	-0.16
C11	420481	000629	5.80	0.23	0.24	1.89	1.78	-0.11
C11	520020	100544	4.01	3.41	8.22	3.37	5.04	1.67
C11	520022	100616	9.04	2.65	8.64	4.98	5.74	0.76
C11	520076	100291	8.63	1.32	2.14	4.14	3.39	-0.75
C11	520110	100508	6.62	3.06	2.56	3.92	4.03	0.11
C11	520206	100510	4.25	1.48	5.80	2.55	3.47	0.92
C11	520210	100545	3.17	3.20	8.05	3.78	4.72	0.94
C11	520216	100526	4.33	1.02	7.33	2.44	3.61	1.17
C11	520245	100495	9.80	1.35	1.96	6.58	3.60	-2.98
C11	520259	100469	6.12	1.53	6.43	3.79	4.02	0.23
C11	520262	100536	5.49	1.31	6.25	3.48	3.74	0.26
C11	520276	100509	6.39	1.01	1.95	2.84	2.73	-0.11
C11	520300	100587	8.47	1.88	2.66	4.18	3.78	-0.40
C11	520301	100590	7.60	1.36	5.74	3.80	4.06	0.26
C11	620022	000010	4.19	0.39	0.68	1.95	1.65	-0.30
C11	620026	000005	1.90	0.16	0.26	0.98	0.96	-0.02
C11	620029	000009	2.03	0.44	0.30	0.94	1.15	0.21
C11	620039	000104	0.49	3.73	4.59	2.98	3.64	0.66
C11	620040	000098	7.61	0.19	0.58	1.86	2.20	0.34
C11	620044	000149	0.46	0.14	0.83	0.70	0.80	0.10
C11	620045	000229	6.34	0.31	0.50	1.87	1.99	0.12
C11	620046	000196	8.72	0.77	0.46	2.31	2.71	0.40
C11	620047	000200	2.13	1.68	0.70	2.76	1.94	-0.82
C11	620049	000216	2.86	0.29	0.47	1.57	1.28	-0.29
C11	620050	000244	0.45	0.76	0.33	0.68	1.01	0.33
C11	620051	000231	10.47	0.42	2.21	3.52	3.29	-0.23
C11	620053	000133	4.66	0.20	0.52	2.37	1.60	-0.77
C11	620284	000079	1.79	0.16	0.22	1.02	0.93	-0.09
C11	620285	000255	2.41	0.17	0.25	1.22	1.07	-0.15
C11	620287	000233	0.76	0.20	0.29	0.97	0.76	-0.21
C11	620312	000228	8.18	0.19	0.52	2.35	2.30	-0.05
C11	620435	000348	3.35	0.50	0.45	1.80	1.48	-0.32
C11	620439	000343	5.21	0.85	1.49	2.72	2.29	-0.43
C11	620441	000342	10.74	0.58	0.42	2.80	3.00	0.20
C11	620444	000341	4.14	1.53	1.10	2.55	2.35	-0.20
C12	120006	001144	0.90	0.15	0.19	0.66	0.74	0.08
C12	120012	001161	1.12	0.22	0.36	0.58	0.86	0.28
C12	120013	001165	0.95	0.26	0.40	0.52	0.86	0.34
C12	120014	001162	1.49	0.17	0.36	0.66	0.91	0.25
C12	120015	001168	0.93	0.12	0.20	0.67	0.73	0.06
C12	120104	001314	0.12	0.18	0.30	0.34	0.63	0.29

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	120110	001320	1.63	0.29	0.61	0.94	1.06	0.12
C12	120111	001321	8.69	0.23	0.45	2.29	2.41	0.12
C12	120112	001322	0.38	0.36	0.57	0.77	0.84	0.07
C12	120115	001325	1.69	0.16	0.33	0.88	0.94	0.06
C12	120128	001339	7.49	0.56	0.36	1.84	2.32	0.48
C12	120158	001377	0.69	0.57	1.46	0.64	1.23	0.59
C12	120179	001403	5.51	0.15	0.45	1.60	1.73	0.13
C12	120200	001423	1.28	0.36	0.42	0.80	0.98	0.18
C12	120238	001492	1.77	0.25	0.46	0.58	1.03	0.45
C12	120286	001624	1.97	0.26	0.54	1.03	1.10	0.07
C12	120301	001660	3.61	0.20	0.61	1.01	1.41	0.40
C12	120310	001673	8.59	0.20	0.28	2.09	2.33	0.24
C12	120320	001684	5.88	0.49	0.41	1.81	1.98	0.17
C12	120328	001692	4.79	0.14	0.18	1.17	1.51	0.34
C12	120329	001693	3.68	0.22	0.23	0.88	1.35	0.47
C12	220009	000933	2.38	0.12	0.17	1.58	1.02	-0.56
C12	220011	000935	7.98	0.13	0.21	3.01	2.16	-0.85
C12	220024	001022	0.46	0.15	0.23	0.62	0.66	0.04
C12	220027	001055	5.51	0.13	0.24	1.92	1.67	-0.25
C12	220040	001082	1.64	0.14	0.16	0.60	0.88	0.28
C12	220093	001208	0.70	0.14	0.27	0.97	0.71	-0.26
C12	220101	001216	3.53	0.13	0.22	1.26	1.26	0.00
C12	220102	001217	1.49	0.14	0.31	1.17	0.88	-0.29
C12	220109	001233	1.97	0.14	0.17	1.19	0.94	-0.25
C12	220151	001349	1.27	0.10	0.28	1.01	0.81	-0.20
C12	220154	001353	6.11	0.29	0.22	1.66	1.87	0.21
C12	220162	001363	5.62	0.21	0.36	1.97	1.76	-0.21
C12	220170	001385	5.71	0.19	0.28	1.83	1.75	-0.08
C12	220176	001399	1.34	0.16	0.34	0.64	0.87	0.23
C12	220185	001430	3.13	0.13	0.18	0.92	1.17	0.25
C12	220201	001495	6.25	0.54	0.32	2.07	2.06	-0.01
C12	220202	001504	1.76	0.17	0.31	0.82	0.95	0.13
C12	220203	001511	1.49	0.26	0.25	0.91	0.93	0.02
C12	220216	001564	0.55	0.58	0.30	0.83	0.93	0.10
C12	220222	001575	1.04	0.15	0.37	0.81	0.81	0.00
C12	320092	100167	1.14	0.16	0.12	0.74	0.78	0.04
C12	320121	100801	1.06	0.13	0.12	0.87	0.74	-0.13
C12	320135	100276	0.26	0.13	0.18	0.79	0.60	-0.19
C12	320136	100285	0.08	0.12	0.16	0.35	0.55	0.20
C12	320137	100303	0.10	0.12	0.12	0.42	0.55	0.13
C12	320138	100319	0.10	0.13	0.15	0.51	0.56	0.05
C12	320139	100338	0.53	0.12	0.18	0.61	0.65	0.04
C12	320140	100345	0.70	0.10	0.16	0.65	0.67	0.02
C12	320141	100363	0.90	0.12	0.14	0.71	0.71	0.00
C12	320142	100380	0.85	0.12	0.21	0.67	0.72	0.05
C12	320211	101365	2.45	1.19	1.48	1.26	1.92	0.66
C12	320246	100414	0.11	0.13	0.18	0.68	0.57	-0.11
C12	320261	100769	0.34	0.11	0.18	0.49	0.60	0.11
C12	320285	101265	6.99	0.15	0.13	2.33	1.95	-0.38
C12	320340	101238	2.81	0.11	0.13	0.79	1.09	0.30

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	320395	100795	9.12	0.28	0.15	2.56	2.45	-0.11
C12	320419	101364	0.14	0.12	0.12	0.38	0.55	0.17
C12	320485	101724	1.54	0.59	0.45	1.03	1.17	0.14
C12	320497	105119	5.36	5.13	1.65	4.58	4.67	0.09
C12	320503	104127	0.07	0.10	0.12	0.10	0.53	0.43
C12	320504	104129	2.72	0.17	0.19	1.28	1.12	-0.16
C12	420018	000028	0.33	0.13	0.24	0.33	0.63	0.30
C12	420019	000023	0.07	0.11	0.53	0.36	0.63	0.27
C12	420022	000020	5.43	0.25	0.66	1.50	1.82	0.32
C12	420025	000035	1.59	0.09	0.23	0.51	0.86	0.35
C12	420053	000054	6.44	0.32	0.38	1.61	1.99	0.38
C12	420105	000106	1.50	0.16	0.18	0.49	0.86	0.37
C12	420119	000120	2.76	0.19	0.63	0.78	1.24	0.46
C12	420126	000126	1.17	0.19	0.68	0.55	0.93	0.38
C12	420158	000158	0.71	0.11	0.23	0.48	0.69	0.21
C12	420259	000259	2.80	0.10	0.69	0.89	1.21	0.32
C12	420385	000482	6.74	0.17	0.51	1.91	2.00	0.09
C12	420409	000508	6.59	0.16	0.13	1.59	1.87	0.28
C12	420424	000523	1.85	0.12	0.32	0.47	0.95	0.48
C12	420429	000528	0.92	0.16	0.31	0.48	0.78	0.30
C12	420439	000560	1.65	0.11	0.32	0.73	0.90	0.17
C12	420441	000562	7.70	0.18	0.17	1.55	2.12	0.57
C12	420471	000620	8.80	0.26	0.15	2.16	2.38	0.22
C12	420477	000625	4.19	0.29	0.31	1.38	1.50	0.12
C12	420479	000627	3.73	0.09	0.18	0.88	1.27	0.39
C12	420484	000632	0.26	0.11	0.19	0.22	0.59	0.37
C12	420485	000633	1.52	0.13	0.48	0.57	0.92	0.35
C12	420507	000665	3.55	0.26	0.72	0.99	1.46	0.47
C12	520016	100130	6.01	0.31	2.83	3.56	2.48	-1.08
C12	520017	100534	3.15	1.43	3.25	2.30	2.61	0.31
C12	520066	100044	0.11	1.23	2.79	1.99	1.79	-0.20
C12	520082	100535	6.65	1.35	2.42	3.30	3.08	-0.22
C12	520098	100547	6.17	1.46	3.22	3.53	3.23	-0.30
C12	520100	100429	10.10	2.74	2.45	3.65	4.53	0.88
C12	520104	100220	3.45	0.66	2.04	1.89	1.97	0.08
C12	520114	100468	7.75	0.48	2.92	2.81	2.95	0.14
C12	520118	100049	2.40	0.84	1.89	1.89	1.82	-0.07
C12	520126	100065	2.60	1.98	2.10	2.34	2.53	0.19
C12	520140	100528	3.32	0.22	1.84	2.58	1.66	-0.92
C12	520157	100478	4.88	0.97	2.62	3.45	2.56	-0.89
C12	520161	100540	5.65	0.75	1.44	2.41	2.32	-0.09
C12	520204	100438	7.04	0.81	2.54	2.99	2.89	-0.10
C12	520248	100470	1.84	0.80	2.88	2.33	1.92	-0.41
C12	520252	100505	9.98	1.90	4.55	4.14	4.55	0.41
C12	520258	100386	3.29	1.26	3.00	2.32	2.49	0.17
C12	520267	100527	1.81	0.44	2.09	1.28	1.53	0.25
C12	520272	100551	8.15	3.68	8.34	6.94	6.05	-0.89
C12	520360	100696	4.33	0.28	2.91	2.22	2.15	-0.07
C12	620020	000024	0.20	0.20	0.34	0.28	0.66	0.38
C12	620030	000007	2.59	2.01	0.30	2.63	2.11	-0.52

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
C12	620037	000084	7.99	0.23	0.33	2.10	2.24	0.14
C12	620038	000082	0.59	0.30	0.30	0.65	0.79	0.14
C12	620042	000063	2.89	0.16	0.27	0.67	1.17	0.50
C12	620054	000215	4.19	0.16	0.34	1.06	1.44	0.38
C12	620055	000214	5.30	0.19	0.67	1.21	1.76	0.55
C12	620056	000212	2.30	0.64	0.46	1.31	1.35	0.04
C12	620058	000297	7.61	0.42	1.24	1.93	2.48	0.55
C12	620059	000318	0.52	0.16	0.36	0.33	0.71	0.38
C12	620060	000242	1.79	0.18	0.20	0.71	0.94	0.23
C12	620061	000239	1.43	0.18	0.21	0.53	0.87	0.34
C12	620196	000213	5.87	0.17	0.66	1.37	1.86	0.49
C12	620202	000227	5.30	0.19	0.23	1.01	1.65	0.64
C12	620222	000235	1.04	2.15	2.22	1.71	2.33	0.62
C12	620259	000101	5.51	0.19	0.27	1.30	1.71	0.41
C12	620320	000315	6.92	0.13	0.38	1.49	1.98	0.49
C12	620380	000327	4.24	0.63	1.31	1.62	1.94	0.32
C12	620425	000314	1.37	0.72	2.46	1.26	1.68	0.42
C12	620426	000321	4.26	0.17	0.25	0.92	1.44	0.52
C13	120005	001140	2.26	0.11	0.13	0.93	0.98	0.05
C13	120007	001151	1.19	0.08	0.44	0.81	0.82	0.01
C13	120011	001160	4.31	0.12	0.47	1.82	1.48	-0.34
C13	120170	001390	8.35	0.16	1.03	3.22	2.44	-0.78
C13	120176	001400	4.30	0.16	0.85	1.68	1.59	-0.09
C13	120180	001404	7.98	0.18	0.39	1.93	2.23	0.30
C13	120216	001454	3.97	0.13	1.21	1.32	1.59	0.27
C13	120247	001532	3.24	1.06	3.09	2.21	2.39	0.18
C13	120248	001542	4.81	0.14	0.36	1.50	1.56	0.06
C13	120253	001553	5.80	0.19	0.65	2.26	1.86	-0.40
C13	120293	001640	5.29	1.32	1.24	2.70	2.50	-0.20
C13	120315	001679	8.17	0.26	2.09	3.10	2.71	-0.39
C13	220007	000928	9.81	2.90	1.56	5.25	4.34	-0.91
C13	220012	000936	1.90	0.32	0.51	1.40	1.11	-0.29
C13	220013	000937	6.09	0.17	0.58	2.85	1.89	-0.96
C13	220016	000940	10.13	0.13	0.27	3.26	2.60	-0.66
C13	220017	000941	12.00	2.32	3.58	6.53	4.95	-1.58
C13	220098	001213	7.94	0.21	0.34	2.13	2.22	0.09
C13	220113	001243	2.16	0.18	0.94	0.77	1.19	0.42
C13	220156	001357	4.10	0.16	0.34	1.67	1.42	-0.25
C13	220186	001431	3.90	0.24	1.01	2.13	1.59	-0.54
C13	220213	001560	3.11	0.49	0.39	1.57	1.42	-0.15
C13	320122	100243	0.65	0.11	0.43	0.68	0.73	0.05
C13	320148	100262	5.89	0.11	0.26	2.19	1.74	-0.45
C13	320227	100401	0.90	0.12	0.31	0.73	0.75	0.02
C13	320242	100417	7.13	1.90	2.13	4.39	3.40	-0.99
C13	320292	101338	0.16	0.14	0.35	0.38	0.62	0.24
C13	320381	100823	0.09	0.50	1.82	1.22	1.16	-0.06
C13	320385	100915	3.93	0.24	0.27	1.72	1.42	-0.30
C13	320393	101363	3.47	0.14	0.68	1.89	1.37	-0.52
C13	320404	101345	0.28	0.12	0.41	0.40	0.65	0.25
C13	320407	101464	0.58	0.12	0.43	0.69	0.72	0.03

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C13	420069	000069	7.83	0.64	0.15	2.63	2.39	-0.24
C13	420165	000165	3.29	0.08	0.85	2.12	1.34	-0.78
C13	420230	000230	5.70	0.17	0.90	2.64	1.88	-0.76
C13	420278	000283	3.11	0.07	0.14	2.72	1.13	-1.59
C13	420280	000287	4.11	0.13	0.29	1.39	1.40	0.01
C13	420306	000325	3.39	0.10	0.49	1.29	1.28	-0.01
C13	420339	000385	4.75	1.81	2.57	3.36	2.98	-0.38
C13	420395	000494	6.89	0.12	0.20	2.63	1.93	-0.70
C13	420399	000498	3.09	0.17	0.21	1.26	1.20	-0.06
C13	420404	000503	11.00	0.11	0.33	4.83	2.78	-2.05
C13	420433	000532	0.26	0.13	0.39	0.48	0.65	0.17
C13	420451	000574	8.62	0.45	0.22	3.28	2.46	-0.82
C13	520004	100131	3.24	0.94	1.59	2.34	1.97	-0.37
C13	520091	100025	4.66	0.32	5.19	3.36	2.78	-0.58
C13	520132	100161	3.95	1.70	3.05	4.22	2.87	-1.35
C13	520181	100292	0.96	0.21	1.26	1.42	1.04	-0.38
C13	520190	100257	4.87	1.14	1.37	2.76	2.35	-0.41
C13	520218	100471	6.26	0.94	2.77	2.72	2.86	0.14
C13	520250	100419	5.79	2.19	2.63	2.76	3.41	0.65
C13	520255	100500	0.11	0.81	0.46	1.45	1.00	-0.45
C13	520285	100546	5.14	0.26	1.75	3.43	2.02	-1.41
C13	520307	100597	4.75	2.01	9.74	4.73	4.80	0.07
C13	620007	000023	8.09	0.19	0.23	2.40	2.21	-0.19
C13	620019	000004	4.90	0.70	0.71	2.03	1.96	-0.07
C13	620041	000089	4.14	0.19	0.20	1.33	1.41	0.08
C13	620063	000217	1.74	0.43	1.96	1.40	1.48	0.08
C13	620065	000256	6.86	0.47	0.59	2.51	2.20	-0.31
C13	620066	000189	7.20	0.26	1.04	2.41	2.27	-0.14
C13	620067	000160	8.17	0.17	0.57	2.72	2.30	-0.42
C13	620068	000219	5.42	0.18	0.40	1.89	1.71	-0.18
C13	620195	000253	0.64	0.20	0.64	0.55	0.82	0.27
C13	620201	000240	6.44	0.30	0.72	2.80	2.06	-0.74
C13	620384	000290	6.99	0.21	1.27	2.23	2.25	0.02
C13	620421	000285	7.76	0.17	0.42	2.50	2.18	-0.32
C14	120244	001521	1.79	0.58	1.38	1.20	1.44	0.24
C14	120269	001577	6.33	0.25	0.42	2.72	1.94	-0.78
C14	120426	001771	4.26	0.42	1.45	1.56	1.86	0.30
C14	220312	000815	1.95	0.73	0.60	1.49	1.36	-0.13
C14	220349	000850	6.20	0.97	1.74	2.98	2.62	-0.36
C14	320023	100059	7.46	0.67	0.87	2.93	2.50	-0.43
C14	320040	100130	0.74	0.52	0.43	0.96	0.97	0.01
C14	320368	100667	4.35	1.73	2.00	2.61	2.72	0.11
C14	420452	000575	6.30	0.61	0.88	2.99	2.24	-0.75
C14	420500	000658	4.26	1.14	1.49	2.97	2.26	-0.71
C14	520002	100045	3.19	1.53	2.01	2.71	2.38	-0.33
C14	520003	100109	6.46	2.12	2.82	3.47	3.55	0.08
C14	520071	100015	8.93	4.18	4.48	5.14	5.55	0.41
C14	520265	100570	6.54	4.83	6.16	6.17	5.83	-0.34
C14	620071	000220	9.07	2.48	3.20	2.93	4.36	1.43
C14	620072	000248	3.56	0.80	2.16	1.75	2.10	0.35

RBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C15	120235	001477	7.28	0.87	1.73	3.03	2.78	-0.25
C15	220251	001608	2.10	7.48	10.10	9.14	7.31	-1.83
C15	320383	100865	0.13	0.13	0.83	0.85	0.73	-0.12
C15	420155	000155	3.26	0.97	1.03	1.56	1.86	0.30
C15	420480	000628	7.63	1.37	1.19	3.82	2.99	-0.83
C15	520141	100272	7.13	1.28	1.85	4.15	3.00	-1.15
C15	520329	100632	4.71	2.23	2.07	3.84	3.08	-0.76
C15	620062	000106	6.57	0.25	1.21	2.19	2.18	-0.01
C17	120137	001350	8.25	2.04	2.10	3.17	3.69	0.52
C17	120223	001461	6.32	2.07	1.43	3.21	3.16	-0.05
C17	220010	000934	7.51	1.26	1.76	3.88	3.04	-0.84
C17	220121	001273	5.20	0.56	1.39	2.82	2.11	-0.71
C17	320201	100387	5.09	1.22	0.97	2.60	2.35	-0.25
C17	320245	100416	5.99	0.58	1.26	2.53	2.25	-0.28
C17	420427	000526	5.22	0.62	1.08	2.33	2.07	-0.26
C17	420578	000837	6.45	0.07	0.38	2.24	1.86	-0.38
C17	620070	000071	3.43	0.46	0.51	1.69	1.49	-0.20
C17	620365	000163	6.01	1.55	2.17	2.65	3.00	0.35
C18	120438	001813	3.31	0.14	0.58	1.97	1.31	-0.66
C18	220263	001653	3.67	2.42	0.99	3.43	2.71	-0.72
C18	220326	001862	3.96	2.40	2.06	3.12	3.02	-0.10
C18	320048	100640	3.83	0.38	1.33	3.17	1.72	-1.45
C18	320244	100415	4.75	1.99	0.64	1.35	2.61	1.26
C18	520125	100530	9.13	2.31	3.67	4.73	4.39	-0.34
C18	520183	100439	8.66	4.08	5.33	4.48	5.65	1.17
C18	520188	100250	4.98	2.17	2.59	3.19	3.22	0.03
C18	520214	100475	1.89	2.32	2.58	2.47	2.68	0.21
C18	520263	100481	0.85	3.29	2.42	2.80	2.96	0.16
C18	620415	000185	2.07	0.19	0.31	1.06	1.03	-0.03
C19	120422	001761	6.85	0.37	2.22	3.96	2.54	-1.42
C19	220008	000929	5.77	3.09	2.91	4.66	3.96	-0.70
C19	220266	001645	9.66	1.00	1.97	3.19	3.38	0.19
C19	320018	100053	0.10	0.15	0.31	0.31	0.61	0.30
C19	320436	101174	5.76	0.14	1.99	3.03	2.14	-0.89
C19	320447	101198	3.48	0.13	2.27	2.25	1.74	-0.51
C19	420431	000530	7.38	3.07	1.87	4.50	4.02	-0.48
C19	420488	000587	7.62	3.40	4.82	5.44	4.95	-0.49
C19	620021	000087	6.57	0.17	2.73	2.04	2.50	0.46
C19	620073	000080	3.66	0.39	2.43	2.07	1.96	-0.11
C19	620211	000187	0.32	1.84	2.28	1.46	2.04	0.58
C20	520320	100624	6.88	5.64	4.04	7.40	5.83	-1.57
C20	520325	100621	4.67	4.09	3.05	5.62	4.31	-1.31
F30	120026	001196	4.11	0.69	0.95	2.56	1.86	-0.70
F30	120409	001798	3.60	0.24	0.18	1.87	1.33	-0.54
F30	120435	001721	4.23	0.12	0.17	1.44	1.39	-0.05
F30	120436	001804	0.17	0.17	0.15	0.26	0.59	0.33
F30	220087	001201	4.30	0.27	0.10	1.23	1.47	0.24
F30	220257	001622	0.69	0.19	0.18	1.39	0.72	-0.67
F30	220294	001788	0.22	0.12	0.15	1.09	0.58	-0.51
F30	220296	000843	0.14	0.23	0.17	0.88	0.63	-0.25

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F30	220306	001901	4.65	0.11	0.18	2.30	1.47	-0.83
F30	220353	001876	4.40	0.48	0.30	2.70	1.65	-1.05
F30	320062	100347	0.17	0.08	0.09	0.54	0.53	-0.01
F30	320349	100617	5.09	0.47	0.23	2.67	1.76	-0.91
F30	320377	100950	6.60	0.15	0.10	1.21	1.86	0.65
F30	320386	100800	0.16	0.10	0.12	0.40	0.55	0.15
F30	320388	100825	6.05	0.14	0.12	1.94	1.75	-0.19
F30	420051	000050	2.04	0.47	4.44	1.93	2.16	0.23
F30	420084	000089	6.43	0.38	0.26	1.43	1.99	0.56
F30	420145	000145	9.59	0.05	0.36	2.30	2.47	0.17
F30	420412	000511	3.26	0.10	0.07	0.83	1.16	0.33
F30	420503	000661	5.44	0.39	4.19	2.96	2.74	-0.22
F30	520005	100232	0.13	0.09	0.53	1.27	0.63	-0.64
F30	520260	100506	9.39	1.70	1.28	3.16	3.54	0.38
F30	520270	100474	3.40	3.69	2.67	3.87	3.75	-0.12
F30	520299	100588	6.74	0.66	5.39	2.27	3.43	1.16
F30	520305	100589	0.57	1.19	4.68	2.03	2.31	0.28
F30	620300	000175	5.84	0.21	0.26	1.63	1.78	0.15
F30	620327	000057	1.17	0.17	0.19	0.56	0.81	0.25
F30	620333	000075	2.89	0.15	0.18	1.04	1.14	0.10
F30	620367	000153	5.39	0.26	0.32	1.33	1.73	0.40
F30	620434	000332	0.21	0.18	0.18	0.71	0.62	-0.09
F30	620437	000338	3.99	0.16	0.17	1.46	1.36	-0.10
F31	120129	001340	1.19	0.15	0.14	0.44	0.79	0.35
F31	120252	001552	6.52	0.33	0.13	2.42	1.95	-0.47
F31	320378	100765	3.45	0.11	0.11	1.01	1.21	0.20
F31	620009	000014	1.49	0.15	0.15	0.44	0.85	0.41
F32	120132	001344	0.86	0.16	0.15	0.49	0.73	0.24
F32	120159	001382	7.57	0.12	0.19	1.73	2.06	0.33
F32	120181	001405	0.21	0.13	0.03	0.36	0.55	0.19
F32	120191	001414	3.67	0.12	0.15	0.96	1.27	0.31
F32	120220	001431	6.03	0.15	0.15	1.09	1.76	0.67
F32	120250	001550	6.36	0.61	0.13	2.34	2.07	-0.27
F32	120267	001575	2.66	0.13	0.14	1.10	1.07	-0.03
F32	220031	001061	0.36	0.16	0.15	1.04	0.63	-0.41
F32	220114	001246	4.46	0.12	0.14	1.60	1.43	-0.17
F32	220117	001257	6.64	0.12	0.12	2.26	1.86	-0.40
F32	220140	001330	3.28	0.17	0.18	1.41	1.23	-0.18
F32	220161	001362	3.11	0.11	0.12	1.23	1.15	-0.08
F32	220211	001558	8.62	0.12	0.10	2.94	2.25	-0.69
F32	320026	100068	7.07	0.10	0.10	1.94	1.93	-0.01
F32	320096	100169	4.66	0.13	0.14	1.99	1.47	-0.52
F32	320115	100216	2.95	0.10	0.11	0.77	1.11	0.34
F32	320225	100430	5.67	0.11	0.11	1.90	1.66	-0.24
F32	320229	100442	3.76	0.11	0.11	1.25	1.27	0.02
F32	320268	100602	3.04	0.09	0.15	1.16	1.13	-0.03
F32	320325	100616	5.25	0.88	0.19	1.86	2.01	0.15
F32	320394	101070	8.07	0.67	0.24	1.52	2.47	0.95
F32	420003	000003	2.30	0.13	0.02	0.76	0.97	0.21
F32	420048	000051	5.14	0.08	0.08	1.31	1.53	0.22

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F32	420095	000092	6.44	0.09	0.19	1.23	1.82	0.59
F32	420101	000102	2.52	0.08	0.06	1.17	1.00	-0.17
F32	420182	000182	2.92	0.16	0.10	1.24	1.13	-0.11
F32	420340	000387	4.29	0.09	0.08	1.32	1.36	0.04
F32	420341	000388	7.19	0.07	0.07	1.29	1.93	0.64
F32	420440	000561	0.76	0.54	0.10	1.53	0.90	-0.63
F32	520018	100261	4.42	0.11	0.11	1.11	1.41	0.30
F32	520083	100155	0.90	3.26	4.71	4.47	3.50	-0.97
F32	520101	100139	5.43	0.49	0.52	1.36	1.91	0.55
F32	520107	100067	6.84	6.86	2.29	4.62	6.06	1.44
F32	520174	100218	3.75	0.30	0.07	1.52	1.36	-0.16
F32	520240	100504	4.98	0.43	1.10	1.35	1.93	0.58
F32	520256	100388	2.63	0.07	0.24	1.65	1.06	-0.59
F32	520266	100507	5.44	2.06	1.81	3.09	3.07	-0.02
F32	620080	000117	7.65	0.18	0.18	1.95	2.11	0.16
F32	620082	000156	3.05	0.16	0.18	0.93	1.17	0.24
F32	620083	000123	7.23	0.28	0.18	1.67	2.08	0.41
F32	620084	000157	2.75	0.15	0.16	0.87	1.10	0.23
F32	620085	000094	0.14	0.16	0.16	0.65	0.59	-0.06
F32	620203	000095	2.08	0.13	0.14	0.65	0.95	0.30
F32	620442	000345	0.12	0.15	0.15	0.28	0.57	0.29
F33	120017	001163	0.36	0.46	0.26	0.93	0.82	-0.11
F33	120019	001164	2.38	0.31	0.18	0.95	1.12	0.17
F33	120047	001239	1.84	0.34	0.18	0.69	1.03	0.34
F33	120091	001297	1.13	0.44	0.17	0.58	0.94	0.36
F33	120093	001300	2.67	0.73	0.74	1.32	1.54	0.22
F33	120114	001324	3.61	2.51	3.43	2.36	3.33	0.97
F33	120148	001363	4.66	0.28	0.26	1.83	1.58	-0.25
F33	120165	001385	1.26	0.76	0.52	1.35	1.22	-0.13
F33	120168	001388	0.21	0.30	0.47	0.63	0.75	0.12
F33	120172	001396	0.99	0.26	0.28	0.77	0.84	0.07
F33	120177	001401	4.74	0.30	0.54	1.89	1.68	-0.21
F33	120183	001407	0.42	0.23	0.16	0.75	0.68	-0.07
F33	120185	001409	0.99	0.23	0.23	0.67	0.81	0.14
F33	120186	001372	1.91	0.50	0.73	1.38	1.26	-0.12
F33	120202	001425	0.16	0.19	0.25	0.56	0.63	0.07
F33	120277	001591	4.69	0.23	0.32	1.74	1.58	-0.16
F33	120283	001607	7.60	0.26	0.23	1.95	2.15	0.20
F33	220004	000932	0.83	0.83	1.39	1.66	1.38	-0.28
F33	220005	000930	5.33	0.45	0.44	1.75	1.85	0.10
F33	220054	001096	4.32	0.37	0.38	2.01	1.59	-0.42
F33	220115	001247	0.89	0.16	0.18	0.74	0.74	0.00
F33	220142	001332	0.15	0.19	0.35	0.80	0.65	-0.15
F33	220148	001342	0.34	0.37	0.19	0.93	0.75	-0.18
F33	220168	001378	2.64	0.23	0.40	1.22	1.18	-0.04
F33	220192	001452	2.68	0.39	0.56	2.31	1.32	-0.99
F33	220221	001573	0.19	0.45	0.41	0.84	0.81	-0.03
F33	220228	001583	2.28	0.25	0.50	1.60	1.15	-0.45
F33	220235	001591	0.39	0.22	0.28	0.91	0.70	-0.21
F33	220249	001606	5.44	0.25	0.35	1.71	1.74	0.03

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F33	220269	001655	2.89	0.21	0.42	1.40	1.23	-0.17
F33	220289	001791	0.44	0.29	0.34	0.73	0.76	0.03
F33	220316	000825	4.43	0.70	0.78	1.96	1.89	-0.07
F33	320027	100687	0.42	0.20	0.16	0.57	0.66	0.09
F33	320044	100111	4.61	0.24	0.13	1.55	1.52	-0.03
F33	320082	100346	6.72	0.20	0.18	1.90	1.93	0.03
F33	320125	100242	0.78	0.09	0.14	0.63	0.67	0.04
F33	320149	100278	0.81	0.61	0.26	1.25	0.99	-0.26
F33	320159	100290	0.13	0.14	0.12	0.67	0.56	-0.11
F33	320160	100289	0.20	0.20	0.30	0.59	0.65	0.06
F33	320167	100361	5.12	1.36	1.24	3.18	2.49	-0.69
F33	320214	100546	1.33	0.14	0.13	0.55	0.81	0.26
F33	320275	100469	9.11	0.19	0.25	1.93	2.42	0.49
F33	320284	100505	0.52	0.20	0.25	0.51	0.71	0.20
F33	320371	100109	0.46	0.29	0.27	0.36	0.75	0.39
F33	320379	100793	0.72	0.24	0.17	1.11	0.75	-0.36
F33	320396	100792	0.21	0.14	0.15	1.56	0.59	-0.97
F33	320397	100797	6.72	0.36	0.30	2.14	2.05	-0.09
F33	420037	000031	0.73	0.02	0.0	0.70		
F33	420040	000036	8.29	0.49	0.45	2.05	2.47	0.42
F33	420041	000039	1.22	0.21	0.10	0.73	0.82	0.09
F33	420079	000079	4.41	0.22	0.10	1.27	1.46	0.19
F33	420080	000080	0.60	0.13	0.13	0.57	0.65	0.08
F33	420092	000097	1.28	0.35	0.44	1.11	0.98	-0.13
F33	420111	000112	0.73	0.28	0.27	0.96	0.80	-0.16
F33	420124	000125	0.98	0.14	0.17	0.59	0.75	0.16
F33	420137	000136	8.73	0.25	0.10	2.03	2.34	0.31
F33	420139	000139	1.40	0.33	0.17	1.07	0.93	-0.14
F33	420140	000140	4.24	0.20	0.20	1.40	1.44	0.04
F33	420192	000192	5.08	0.28	0.13	1.34	1.63	0.29
F33	420206	000206	8.21	0.10	0.10	1.96	2.16	0.20
F33	420324	000348	0.39	0.18	0.37	0.56	0.70	0.14
F33	420486	000634	0.85	0.11	0.12	0.86	0.69	-0.17
F33	520019	100056	7.91	1.91	1.22	3.79	3.34	-0.45
F33	520021	100138	4.70	1.41	0.56	2.24	2.27	0.03
F33	520044	100501	0.64	1.68	1.25	2.16	1.77	-0.39
F33	520112	100572	0.66	1.61	1.35	2.65	1.76	-0.89
F33	520166	100176	3.62	0.85	0.36	2.02	1.70	-0.32
F33	520175	100271	1.55	2.54	1.02	2.29	2.36	0.07
F33	520176	100493	2.90	0.27	0.81	1.44	1.35	-0.09
F33	520177	100228	4.11	1.51	0.83	2.30	2.27	-0.03
F33	520221	100334	2.03	0.97	0.84	1.74	1.57	-0.17
F33	520227	100491	2.16	1.38	2.41	2.42	2.19	-0.23
F33	520229	100293	0.13	1.85	1.26	1.99	1.76	-0.23
F33	520241	100442	2.18	1.31	1.59	1.78	1.96	0.18
F33	520253	100549	1.78	1.40	1.09	2.21	1.81	-0.40
F33	520289	100606	0.48	1.00	0.90	1.70	1.28	-0.42
F33	520311	100599	0.49	1.45	0.86	1.53	1.52	-0.01
F33	620016	000015	1.72	0.52	0.69	1.23	1.22	-0.01
F33	620018	000019	5.68	0.28	0.50	1.46	1.84	0.38

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F33	620090	000150	1.31	0.39	0.25	0.95	0.97	0.02
F33	620091	000246	5.34	0.19	0.28	1.46	1.67	0.21
F33	620095	000329	0.20	0.26	0.18	0.37	0.66	0.29
F33	620218	000105	4.67	0.60	0.81	1.98	1.89	-0.09
F33	620225	000232	1.92	0.53	0.43	1.12	1.21	0.09
F33	620231	000064	1.57	0.22	0.37	0.88	0.96	0.08
F33	620246	000191	9.37	0.19	0.16	1.93	2.45	0.52
F33	620256	000226	4.01	0.41	0.38	1.52	1.55	0.03
F33	620258	000183	8.13	0.25	0.41	1.71	2.30	0.59
F33	620265	000182	4.90	0.37	0.91	1.57	1.83	0.26
F33	620297	000108	9.55	0.38	0.58	2.15	2.69	0.54
F33	620363	000203	5.08	0.32	0.31	1.24	1.70	0.46
F33	620392	000330	0.12	0.28	0.26	0.50	0.67	0.17
F33	620393	000286	0.45	0.27	0.36	0.46	0.76	0.30
F33	620424	000304	0.41	0.19	0.32	0.55	0.69	0.14
F34	120033	001206	6.60	0.09	0.24	1.78	1.86	0.08
F34	120079	001282	3.88	0.73	0.22	1.70	1.66	-0.04
F34	120086	001290	0.62	0.35	0.23	0.83	0.80	-0.03
F34	120147	001360	1.91	1.00	1.19	1.58	1.64	0.06
F34	120155	001374	0.14	0.35	0.28	1.20	0.72	-0.48
F34	120196	001419	3.69	0.29	0.41	1.43	1.43	-0.00
F34	120204	001427	1.94	1.86	1.24	1.78	2.12	0.34
F34	120218	001456	4.29	1.52	0.79	2.57	2.30	-0.27
F34	120224	001462	0.13	0.58	0.43	0.93	0.88	-0.05
F34	120226	001465	0.28	0.29	0.78	0.68	0.83	0.15
F34	120233	001474	0.14	0.25	0.30	0.84	0.67	-0.17
F34	120263	001569	0.18	0.57	0.68	1.35	0.94	-0.41
F34	120268	001576	8.06	0.23	0.23	2.12	2.23	0.11
F34	120270	001578	0.57	0.34	0.20	0.86	0.78	-0.08
F34	120271	001579	7.96	0.28	0.28	2.47	2.25	-0.22
F34	120272	001580	0.74	0.80	1.19	1.36	1.30	-0.06
F34	120279	001598	0.50	0.41	0.81	0.89	0.95	0.06
F34	120282	001606	1.63	0.36	0.22	1.06	1.01	-0.05
F34	120297	001656	0.20	0.28	0.21	0.65	0.67	0.02
F34	120300	001659	0.19	0.45	0.54	0.70	0.84	0.14
F34	220002	000926	2.22	0.31	0.38	1.41	1.14	-0.27
F34	220110	001234	6.72	0.19	0.16	2.37	1.92	-0.45
F34	220120	001269	2.22	0.17	0.37	1.72	1.06	-0.66
F34	220127	001306	5.24	0.16	0.37	1.79	1.66	-0.13
F34	220147	001340	8.49	0.99	1.04	2.93	2.92	-0.01
F34	220167	001376	0.85	0.24	0.59	1.50	0.87	-0.63
F34	220171	001386	0.15	0.16	0.32	0.90	0.63	-0.27
F34	220226	001579	0.09	0.18	0.52	0.31	0.67	0.36
F34	220238	001595	1.60	0.37	0.92	1.31	1.17	-0.14
F34	220241	001598	11.36	0.65	0.52	4.54	3.19	-1.35
F34	220243	001600	1.99	0.18	0.22	0.80	0.98	0.18
F34	220246	001603	6.04	0.30	0.88	2.33	2.02	-0.31
F34	220253	001610	0.59	0.26	0.75	0.86	0.87	0.01
F34	220260	001626	0.67	0.40	0.35	1.54	0.87	-0.67
F34	220283	001754	1.38	0.66	0.80	2.44	1.26	-1.18

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F34	220284	001785	3.79	0.31	0.52	1.73	1.49	-0.24
F34	220287	001790	8.93	0.52	0.51	3.16	2.63	-0.53
F34	220288	001799	5.15	0.33	0.32	1.86	1.72	-0.14
F34	220313	001797	1.11	0.51	1.32	3.95	1.25	-2.70
F34	320057	100379	10.11	0.78	0.82	3.07	3.08	0.01
F34	320069	100186	3.98	0.27	0.44	1.39	1.48	0.09
F34	320072	100128	0.21	0.18	0.18	0.87	0.62	-0.25
F34	320073	100126	8.01	0.38	0.54	2.40	2.38	-0.02
F34	320080	100170	3.50	0.21	0.78	1.52	1.44	-0.08
F34	320090	100221	9.93	0.52	0.23	2.84	2.76	-0.08
F34	320129	100228	10.84	0.52	0.39	3.29	2.98	-0.31
F34	320174	100343	3.06	0.22	0.14	1.05	1.20	0.15
F34	320213	100398	4.59	0.18	0.24	1.55	1.51	-0.04
F34	320228	100547	7.48	0.22	0.15	2.42	2.09	-0.33
F34	320236	100426	6.82	0.17	0.21	1.84	1.94	0.10
F34	320256	101197	6.70	0.29	0.16	2.59	1.97	-0.62
F34	320273	100489	0.52	0.14	0.22	1.12	0.67	-0.45
F34	320295	100591	8.08	0.78	0.44	2.82	2.58	-0.24
F34	320301	100864	3.71	0.24	0.60	1.66	1.45	-0.21
F34	320337	100605	0.16	0.18	0.27	0.97	0.63	-0.34
F34	320405	100890	1.88	0.69	0.40	1.26	1.28	0.02
F34	320431	100944	0.13	0.14	0.24	0.68	0.59	-0.09
F34	420014	000018	0.39	0.27	0.29	0.95	0.73	-0.22
F34	420016	000015	0.57	0.65	0.28	0.85	0.97	0.12
F34	420017	000016	0.10	0.23	0.25	1.05	0.64	-0.41
F34	420030	000032	3.37	0.04	0.16	1.41	1.17	-0.24
F34	420031	000024	1.06	0.48	0.56	0.99	1.04	0.05
F34	420032	000010	0.51	0.30	0.08	0.81	0.72	-0.09
F34	420044	000038	1.81	0.59	0.44	1.24	1.22	-0.02
F34	420045	000041	11.12	0.83	1.10	3.02	3.38	0.36
F34	420054	000057	2.75	0.59	0.21	2.01	1.35	-0.66
F34	420061	000063	0.58	0.38	0.54	0.99	0.88	-0.11
F34	420072	000071	8.43	0.57	0.55	2.63	2.56	-0.07
F34	420074	000074	4.55	0.29	0.11	1.38	1.53	0.15
F34	420076	000078	4.21	0.14	0.30	1.46	1.43	-0.03
F34	420083	000085	0.29	0.37	0.49	1.40	0.81	-0.59
F34	420085	000090	8.55	0.26	0.46	1.89	2.40	0.51
F34	420110	000111	0.45	1.52	0.86	1.46	1.55	0.09
F34	420113	000114	2.88	1.01	0.41	1.55	1.65	0.10
F34	420114	000115	3.71	0.25	0.19	0.97	1.36	0.39
F34	420132	000131	9.12	0.80	0.29	2.94	2.76	-0.18
F34	420143	000143	1.53	0.58	0.26	1.32	1.12	-0.20
F34	420151	000151	4.85	0.12	0.64	1.54	1.62	0.08
F34	520051	100050	9.68	1.91	1.45	3.33	3.75	0.42
F34	520057	100009	8.15	1.36	1.50	2.84	3.16	0.32
F34	520061	100100	3.43	1.76	0.93	2.52	2.29	-0.23
F34	520074	100021	1.95	1.26	1.48	1.82	1.86	0.04
F34	520124	100061	0.29	1.03	1.62	1.74	1.43	-0.31
F34	520167	100485	5.22	2.58	1.87	5.29	3.32	-1.97
F34	520189	100280	5.47	2.05	1.04	2.51	2.89	0.38

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F34	520198	100479	4.78	1.58	1.27	2.40	2.55	0.15
F34	520203	100487	1.39	0.96	1.68	2.17	1.63	-0.54
F34	520207	100566	4.90	1.12	1.11	1.79	2.29	0.50
F34	520226	100476	4.84	1.92	2.46	3.42	3.03	-0.39
F34	520233	100503	5.87	1.60	1.18	2.55	2.76	0.21
F34	520235	100629	1.78	1.23	1.77	2.16	1.88	-0.28
F34	520251	100489	6.23	0.94	1.63	2.34	2.58	0.24
F34	520254	100455	0.16	0.31	0.62	0.80	0.78	-0.02
F34	520318	100622	2.68	1.37	1.09	1.66	1.97	0.31
F34	520355	100708	0.06	0.58	2.04	1.20	1.25	0.05
F34	520372	100791	7.25	2.90	4.00	3.88	4.41	0.53
F34	620017	000036	3.93	0.18	0.32	0.64	1.40	0.76
F34	620024	000025	0.12	0.41	0.27	2.15	0.74	-1.41
F34	620025	000072	5.66	0.38	0.60	1.67	1.92	0.25
F34	620074	000039	2.82	0.28	0.23	0.77	1.21	0.44
F34	620075	000049	0.23	0.23	0.21	0.66	0.65	-0.01
F34	620076	000119	0.18	0.26	0.79	0.74	0.80	0.06
F34	620077	000067	0.28	0.19	1.19	0.31	0.88	0.57
F34	620078	000081	4.77	0.24	0.34	1.34	1.60	0.26
F34	620079	000062	3.06	0.31	0.29	0.59	1.28	0.69
F34	620088	000083	6.69	0.52	0.44	1.35	2.16	0.81
F34	620096	000259	5.46	0.17	0.20	1.02	1.67	0.65
F34	620097	000300	2.59	0.68	0.87	1.09	1.53	0.44
F34	620098	000205	0.35	0.27	0.51	0.93	0.77	-0.16
F34	620194	000269	1.52	0.26	0.61	0.45	1.02	0.57
F34	620207	000047	6.65	0.18	0.20	0.92	1.91	0.99
F34	620226	000151	2.28	0.19	0.41	1.15	1.09	-0.06
F34	620236	000180	0.12	0.48	0.58	1.39	0.85	-0.54
F34	620242	000051	1.52	0.18	0.52	0.70	0.96	0.26
F35	120182	001406	0.12	0.28	0.34	0.72	0.69	-0.03
F35	120187	001410	0.56	0.55	0.82	1.00	1.04	0.04
F35	120190	001413	0.53	1.08	0.54	1.17	1.25	0.08
F35	120260	001565	0.10	0.16	0.06	0.63	0.55	-0.08
F35	120261	001566	4.37	0.21	0.19	1.34	1.47	0.13
F35	120275	001587	3.37	0.48	0.74	1.48	1.55	0.07
F35	120276	001586	0.50	0.97	0.47	1.24	1.17	-0.07
F35	120299	001658	0.16	0.74	0.30	0.68	0.94	0.26
F35	120313	001676	0.18	0.21	0.18	0.62	0.63	0.01
F35	120319	001683	1.47	0.49	0.59	1.69	1.13	-0.56
F35	120326	001690	2.06	0.24	0.18	1.11	1.02	-0.09
F35	220112	001242	5.02	0.63	0.24	2.51	1.84	-0.67
F35	220152	001351	2.19	0.13	0.18	2.08	0.99	-1.09
F35	220159	001360	0.40	0.36	0.20	1.15	0.76	-0.39
F35	220178	001412	6.07	0.38	0.60	2.06	2.00	-0.06
F35	220219	001571	0.47	0.24	0.25	0.59	0.72	0.13
F35	220232	001588	11.95	1.05	0.19	2.78	3.44	0.66
F35	220245	001602	7.36	3.45	4.32	4.12	4.81	0.69
F35	220255	001612	5.72	0.55	1.03	1.60	2.12	0.52
F35	220270	001656	8.55	0.30	0.56	2.79	2.45	-0.34
F35	220274	001728	0.84	0.21	0.44	0.74	0.82	0.08

ARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F35	220276	001730	3.46	0.41	0.34	1.88	1.43	-0.45
F35	320008	100033	4.45	0.15	0.53	1.80	1.53	-0.27
F35	320011	100042	0.16	0.16	0.34	0.97	0.63	-0.34
F35	320019	100054	3.74	0.22	2.22	1.72	1.83	0.11
F35	320104	100259	0.10	0.15	0.16	0.49	0.57	0.08
F35	320126	100247	2.46	0.12	0.28	1.18	1.06	-0.12
F35	320143	100332	0.08	0.17	0.13	0.63	0.57	-0.06
F35	320154	100320	0.09	0.20	0.14	0.58	0.59	0.01
F35	320173	100317	6.26	0.11	0.27	2.19	1.81	-0.38
F35	320203	100383	10.93	1.03	0.26	2.68	3.25	0.57
F35	320237	100412	0.16	0.18	0.17	0.85	0.60	-0.25
F35	420093	000099	10.76	0.14	0.10	2.21	2.69	0.48
F35	420116	000116	6.85	0.30	0.22	2.17	2.02	-0.15
F35	420130	000129	10.10	0.51	0.96	2.90	2.97	0.07
F35	420146	000146	8.16	1.52	0.28	2.25	2.96	0.71
F35	420148	000148	3.53	0.27	0.12	1.16	1.32	0.16
F35	420194	000194	6.34	0.57	0.21	1.85	2.06	0.21
F35	420195	000195	0.15	0.08	0.10	0.42	0.53	0.11
F35	420198	000198	6.35	0.33	0.09	1.86	1.91	0.05
F35	420201	000201	1.85	0.13	0.11	0.97	0.90	-0.07
F35	420642	000779	0.80	0.14	0.18	1.23	0.71	-0.52
F35	520058	100209	3.61	1.38	1.15	1.91	2.18	0.27
F35	520086	100231	6.41	0.77	0.55	1.53	2.27	0.74
F35	520095	100532	0.52	0.53	0.46	1.10	0.93	-0.17
F35	520146	100101	1.71	1.92	5.89	3.04	3.22	0.18
F35	520168	100413	6.83	2.02	0.57	2.34	3.03	0.69
F35	520171	100188	3.53	0.34	0.35	1.56	1.41	-0.15
F35	520178	100262	7.53	1.97	2.40	2.30	3.58	1.28
F35	520193	100270	2.30	1.91	0.78	1.41	2.11	0.70
F35	620099	000266	5.48	0.16	0.18	1.69	1.66	-0.03
F35	620228	000270	0.65	0.28	0.21	0.57	0.76	0.19
F35	620234	000032	6.35	0.23	0.48	1.95	1.95	-0.00
F35	620238	000195	0.12	0.43	0.70	1.18	0.86	-0.32
F35	620273	000250	5.63	0.27	0.68	1.62	1.87	0.25
F35	620279	000190	0.49	0.16	0.21	0.51	0.67	0.16
F35	620308	000258	5.46	0.32	0.24	1.42	1.76	0.34
F35	620323	000033	0.16	0.16	0.17	0.68	0.59	-0.09
F35	620396	000288	1.53	0.43	0.64	0.41	1.13	0.72
F36	120118	001329	5.92	0.19	0.87	1.29	1.93	0.64
F36	120296	001654	2.74	0.25	1.01	1.44	1.36	-0.08
F36	120306	001667	3.51	0.17	0.98	1.56	1.46	-0.10
F36	220195	001460	0.98	0.36	0.49	0.80	0.94	0.14
F36	220248	001605	2.15	0.79	2.03	1.78	1.78	-0.00
F36	220303	001860	3.13	0.97	1.30	1.55	1.90	0.35
F36	220324	000824	3.84	0.21	0.80	1.00	1.51	0.51
F36	220358	001898	1.18	0.21	0.78	0.93	0.97	0.04
F36	320204	100461	4.48	0.15	0.39	1.54	1.51	-0.03
F36	320241	100410	5.28	0.18	0.53	2.86	1.72	-1.14
F36	320248	100427	0.32	0.19	0.61	0.53	0.75	0.22
F36	420104	000105	4.34	0.47	0.93	1.45	1.78	0.33

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F36	420246	000246	9.07	0.21	0.26	2.26	2.43	0.17
F36	420314	000335	2.39	0.18	0.70	1.36	1.18	-0.18
F36	420338	000384	2.92	0.17	0.58	0.94	1.25	0.31
F36	520222	100499	4.18	0.71	1.90	2.03	2.11	0.08
F36	520223	100472	6.15	2.16	2.93	2.61	3.53	0.92
F36	520353	100684	5.06	1.54	2.33	3.03	2.84	-0.19
F36	520366	100697	6.56	1.07	2.29	2.98	2.87	-0.11
F36	620199	000281	1.89	0.20	1.24	0.55	1.22	0.67
F36	620239	000061	3.11	0.57	0.87	1.35	1.57	0.22
F36	620266	000131	3.20	0.40	1.10	1.07	1.55	0.48
F36	620443	000349	2.87	2.20	2.39	2.41	2.77	0.36
F37	120410	001762	0.09	0.13	0.11	0.21	0.55	0.34
F37	120536	001819	2.78	0.74	0.87	1.66	1.60	-0.06
F37	220107	001231	3.32	0.13	0.35	1.03	1.25	0.22
F37	220310	001796	0.10	0.17	0.16	0.87	0.58	-0.29
F37	320269	100400	5.85	0.15	0.14	0.92	1.72	0.80
F37	320426	100995	3.29	0.13	0.19	0.92	1.21	0.29
F37	320435	101069	0.39	0.13	0.13	0.51	0.61	0.10
F37	420406	000505	6.48	0.17	0.17	1.24	1.87	0.63
F37	420587	000848	3.38	0.08	0.08	0.62	1.17	0.55
F37	420593	000854	0.10	0.11	0.11	0.41	0.54	0.13
F37	520249	100466	4.12	2.63	3.79	4.85	3.59	-1.26
F37	520335	100659	6.87	0.67	3.31	4.42	2.96	-1.46
F37	520337	100635	7.11	1.07	2.29	3.68	2.99	-0.69
F38	120161	001380	2.93	0.39	0.23	0.69	1.29	0.60
F38	120289	001633	0.58	0.72	0.36	0.74	1.02	0.28
F38	120324	001688	8.98	0.29	0.25	1.71	2.45	0.74
F38	220066	001120	6.98	0.71	0.21	1.60	2.27	0.67
F38	220204	001512	0.17	2.05	1.22	0.92	1.87	0.95
F38	220278	001743	1.94	0.60	0.48	0.77	1.26	0.49
F38	220279	001744	0.94	0.66	0.43	0.83	1.08	0.25
F38	220311	001801	2.80	0.69	0.34	1.02	1.45	0.43
F38	320035	100105	10.95	0.44	0.17	2.74	2.91	0.17
F38	320047	100337	7.19	0.35	0.09	2.00	2.09	0.09
F38	320079	100411	3.00	0.31	0.24	0.66	1.26	0.60
F38	320357	100631	5.23	0.59	0.27	1.60	1.87	0.27
F38	420047	000049	3.41	0.17	0.13	0.89	1.24	0.35
F38	420075	000081	7.21	0.28	0.15	1.90	2.07	0.17
F38	420196	000196	1.42	0.10	0.13	0.94	0.80	-0.14
F38	420380	000480	6.79	0.14	0.49	1.76	1.99	0.23
F38	520010	100006	9.13	2.49	2.05	3.02	4.10	1.08
F38	520070	100081	5.31	2.83	1.60	2.74	3.41	0.67
F38	520113	100047	4.40	1.15	0.70	1.89	2.10	0.21
F38	520224	100524	2.71	1.88	1.49	1.70	2.35	0.65
F38	620086	000147	1.01	0.38	0.22	0.61	0.89	0.28
F38	620087	000170	0.46	0.65	0.34	0.47	0.96	0.49
F38	620089	000192	6.65	0.77	0.67	1.54	2.34	0.75
F38	620235	000052	2.87	0.25	0.32	0.67	1.22	0.55
F38	620420	000272	1.27	0.36	1.04	0.35	1.13	0.78
F39	120213	001447	0.17	0.15	0.44	0.49	0.65	0.16

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F39	620245	000034	7.17	3.01	2.55	3.66	4.11	0.45
F40	120288	001632	7.57	0.15	0.74	1.81	2.21	0.40
F40	120307	001668	2.38	0.18	0.69	1.10	1.17	0.07
F40	220244	001601	6.42	0.69	0.69	3.04	2.26	-0.78
F40	220291	001793	8.54	1.14	3.03	3.86	3.49	-0.37
F40	320013	100047	1.51	0.73	0.27	0.83	1.19	0.36
F40	320315	100564	2.97	0.17	0.42	1.05	1.22	0.17
F40	320420	101177	0.11	0.12	0.22	0.41	0.57	0.16
F40	420273	000277	8.87	0.22	0.63	2.44	2.48	0.04
F40	420298	000317	5.39	0.27	0.23	2.75	1.72	-1.03
F40	520234	100477	0.08	0.16	1.79	3.77	0.96	-2.81
F40	520332	100637	2.48	1.76	1.76	1.81	2.30	0.49
F40	620334	000166	2.29	0.30	0.49	0.67	1.17	0.50
F40	620414	000181	0.24	0.18	0.22	0.28	0.63	0.35
F41	120325	001689	8.79	0.23	0.71	2.32	2.49	0.17
F41	120423	001753	1.38	0.26	0.66	1.14	1.01	-0.13
F41	220208	001553	0.37	0.37	0.42	0.96	0.81	-0.15
F41	220330	001882	5.39	0.67	1.92	2.33	2.34	0.01
F41	220340	001873	3.70	0.58	0.28	1.49	1.56	0.07
F41	220375	001881	0.40	0.22	0.42	0.83	0.73	-0.10
F41	320255	100477	9.83	0.31	0.48	2.93	2.69	-0.24
F41	320411	101438	4.07	0.16	0.63	1.54	1.49	-0.05
F41	320430	100991	0.10	0.29	0.19	0.82	0.66	-0.16
F41	420594	000855	1.29	0.40	0.42	1.12	1.01	-0.11
F41	420607	000869	1.87	0.57	0.56	1.42	1.25	-0.17
F41	520109	100416	0.64	1.74	2.30	1.90	2.05	0.15
F41	520147	100490	5.67	1.43	0.76	2.00	2.53	0.53
F41	520212	100519	1.51	1.56	1.46	1.64	1.93	0.29
F41	520336	100633	3.60	2.15	2.42	4.62	2.90	-1.72
F41	620338	000097	5.20	0.22	0.24	1.80	1.65	-0.15
F42	120535	001818	0.27	0.20	6.81	0.48	2.22	1.74
F44	320446	101323	4.97	0.52	3.96	2.98	2.66	-0.32
F44	420605	000867	0.30	0.82	0.95	0.84	1.16	0.32
F44	520354	100676	2.01	1.27	2.09	1.68	2.02	0.34
F45	120462	001797	4.25	0.52	0.55	1.43	1.70	0.27
F45	220118	001258	4.07	0.37	0.57	1.30	1.59	0.29
F45	220212	001559	0.25	0.20	0.38	0.88	0.68	-0.20
F45	220254	001611	5.69	1.04	1.58	2.32	2.51	0.19
F45	220293	000823	4.98	0.47	0.53	1.70	1.81	0.11
F45	320002	100018	0.20	0.37	0.36	0.77	0.76	-0.01
F45	320009	100034	4.09	0.21	0.29	1.37	1.44	0.07
F45	320016	100051	1.24	0.43	0.53	1.03	1.04	0.01
F45	320049	100149	0.21	0.18	0.49	0.53	0.69	0.16
F45	320086	100150	5.31	0.17	0.19	1.47	1.64	0.17
F45	420169	000169	0.59	0.38	0.09	1.22	0.78	-0.44
F45	420247	000247	0.39	0.10	0.17	0.57	0.61	0.04
F45	420289	000303	7.80	0.97	1.03	2.84	2.77	-0.07
F45	520220	100562	2.45	2.28	2.18	2.07	2.68	0.61
F45	520268	100543	2.46	1.47	0.70	1.31	1.89	0.58
F45	520269	100497	1.83	2.13	1.65	1.90	2.35	0.45

EPA

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
F45	520291	100573	2.65	0.90	0.77	1.14	1.64	0.50
F45	620101	000241	1.51	0.28	0.86	0.90	1.09	0.19
F45	620200	000164	2.95	0.27	0.67	1.40	1.33	-0.07
F46	120295	001653	0.24	0.20	0.16	0.47	0.63	0.16
F46	120408	001722	3.35	0.22	1.99	2.25	1.70	-0.55
F46	420208	000208	7.66	0.62	1.32	2.53	2.62	0.09
F46	520326	100620	3.69	0.91	0.42	2.57	1.77	-0.80
F46	520356	100679	6.14	1.95	2.23	4.29	3.25	-1.04
F46	520368	100709	0.61	2.83	1.34	2.39	2.40	0.01
F47	120096	001305	1.36	0.26	0.64	0.99	1.00	0.01
F47	120149	001364	1.41	0.37	0.67	0.99	1.08	0.09
F47	120194	001417	0.74	0.71	1.52	1.15	1.33	0.18
F47	220299	001808	4.48	0.13	0.28	1.09	1.47	0.38
F47	220341	001868	1.37	0.22	0.68	1.22	0.99	-0.23
F47	320283	100580	0.16	0.21	1.00	0.85	0.82	-0.03
F47	320452	101460	0.09	0.12	0.42	0.33	0.62	0.29
F47	420322	000346	3.43	0.48	0.55	1.81	1.51	-0.30
F47	420384	000481	1.49	0.69	0.77	1.73	1.29	-0.44
F47	520209	100486	1.49	0.37	1.35	2.10	1.25	-0.85
F47	520225	100283	0.40	1.37	2.27	1.82	1.80	-0.02
F47	620001	000016	0.23	0.18	0.25	0.31	0.64	0.33
F47	620398	000283	0.44	0.45	0.72	2.74	0.94	-1.80
G51	120020	001175	8.21	0.29	0.25	2.20	2.30	0.10
G51	120027	001197	10.80	3.96	0.70	3.37	4.91	1.54
G51	120028	001198	9.93	0.19	0.41	1.89	2.63	0.74
G51	120041	001225	4.72	0.24	0.29	1.44	1.58	0.14
G51	120051	001247	0.14	0.21	0.22	0.45	0.63	0.18
G51	120087	001291	4.01	0.17	0.19	0.68	1.38	0.70
G51	120095	001304	3.21	0.19	0.24	1.28	1.24	-0.04
G51	220091	001206	8.58	0.17	0.19	2.29	2.29	0.00
G51	220290	000851	2.63	0.13	0.15	0.61	1.07	0.46
G51	220329	000816	1.04	0.16	0.16	0.84	0.77	-0.07
G51	220360	001891	3.70	0.25	0.52	1.94	1.43	-0.51
G51	220377	001894	1.19	0.17	0.35	1.28	0.85	-0.43
G51	320281	100630	10.84	0.16	0.35	1.68	2.78	1.10
G51	320354	100653	6.45	0.32	0.13	1.90	1.93	0.03
G51	320356	100650	4.64	0.24	0.16	1.84	1.53	-0.31
G51	420250	000250	5.89	0.08	0.28	1.46	1.73	0.27
G51	420416	000515	3.82	0.13	0.14	1.43	1.30	-0.13
G51	420418	000517	5.45	0.13	0.35	1.26	1.68	0.42
G51	420446	000567	9.77	0.14	0.19	1.98	2.52	0.54
G51	420454	000599	5.07	0.15	1.32	1.89	1.85	-0.04
G51	420585	000844	6.83	0.11	0.14	1.50	1.90	0.40
G51	420595	000856	1.70	0.09	0.11	0.55	0.85	0.30
G51	420597	000858	6.43	0.21	0.18	2.98	1.88	-1.10
G51	420598	000859	2.91	0.11	1.88	1.64	1.53	-0.11
G51	420600	000861	0.21	0.10	0.12	0.62	0.56	-0.06
G51	420603	000865	6.75	0.07	0.14	1.16	1.86	0.70
G51	420637	000971	3.62	0.11	0.11	1.63	1.25	-0.38
G51	520037	100005	2.80	0.31	6.91	1.47	2.81	1.34

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G51	520293	100561	7.25	2.23	4.34	4.24	4.13	-0.11
G51	520338	100644	3.13	3.29	3.88	2.67	3.77	1.10
G51	520339	100645	0.93	0.30	0.69	1.03	0.95	-0.08
G51	520373	100802	8.26	5.70	10.20	8.95	7.61	-1.34
G51	620267	000249	7.28	0.21	0.23	1.43	2.06	0.63
G51	620272	000142	0.19	0.16	0.22	0.64	0.61	-0.03
G51	620282	000161	3.83	0.21	0.57	1.55	1.45	-0.10
G51	620305	000238	2.69	0.16	0.18	0.71	1.10	0.39
G52	120023	001187	0.73	0.16	0.18	0.67	0.71	0.04
G52	120052	001248	4.31	0.17	0.19	1.13	1.44	0.31
G52	120098	001308	4.23	0.18	0.76	0.92	1.56	0.64
G52	120151	001370	7.60	0.24	0.36	1.72	2.17	0.45
G52	120201	001424	6.27	0.61	0.14	2.63	2.05	-0.58
G52	120205	001436	0.16	0.13	0.15	0.38	0.57	0.19
G52	120232	001473	0.13	0.16	0.29	1.13	0.61	-0.52
G52	120290	001634	3.69	0.17	0.20	1.68	1.31	-0.37
G52	120308	001669	5.43	0.17	0.26	1.55	1.68	0.13
G52	120430	001792	5.39	0.12	0.15	1.13	1.62	0.49
G52	120442	001772	7.62	0.15	0.13	1.47	2.07	0.60
G52	120457	001773	2.71	0.15	0.14	0.95	1.09	0.14
G52	120460	001793	2.88	0.15	0.15	0.78	1.13	0.35
G52	120466	001778	6.76	0.14	0.17	1.12	1.91	0.79
G52	120467	001716	5.78	0.19	0.19	1.06	1.74	0.68
G52	120468	001735	7.60	0.19	0.52	1.67	2.19	0.52
G52	120530	001808	4.63	0.82	0.63	1.55	1.96	0.41
G52	220172	001387	4.38	0.73	0.18	2.47	1.75	-0.72
G52	220182	001418	6.20	0.61	0.23	2.28	2.06	-0.22
G52	220198	001476	7.08	0.15	0.16	1.78	1.97	0.19
G52	220218	001570	3.68	0.18	0.21	1.15	1.32	0.17
G52	220237	001594	0.16	0.16	0.19	0.28	0.60	0.32
G52	220271	001667	3.53	0.32	0.16	1.45	1.35	-0.10
G52	220277	001731	8.99	0.72	0.14	1.83	2.66	0.83
G52	220300	000844	0.19	0.19	0.16	0.32	0.61	0.29
G52	220320	001810	5.39	0.57	0.15	2.22	1.86	-0.36
G52	220342	001869	5.57	0.17	0.12	1.50	1.67	0.17
G52	220346	000852	5.86	0.17	0.19	1.05	1.75	0.70
G52	220350	001853	6.79	0.17	0.17	1.59	1.93	0.34
G52	220351	001854	7.27	0.17	0.18	1.48	2.03	0.55
G52	220378	002054	5.56	0.13	0.14	1.06	1.65	0.59
G52	320185	100470	4.80	0.17	0.17	1.16	1.53	0.37
G52	320249	100447	6.30	0.12	0.13	1.29	1.79	0.50
G52	320321	100575	0.26	0.11	0.13	0.47	0.58	0.11
G52	320406	100892	5.34	0.12	0.13	1.26	1.60	0.34
G52	320421	101410	4.54	0.12	0.13	1.49	1.44	-0.05
G52	320427	101076	4.22	0.12	0.12	0.88	1.37	0.49
G52	320428	101147	5.56	0.11	0.12	1.12	1.64	0.52
G52	320429	101171	4.84	0.14	0.14	1.32	1.51	0.19
G52	320480	101465	6.54	0.29	0.15	1.67	1.94	0.27
G52	320484	101683	0.22	0.12	0.54	0.82	0.67	-0.15
G52	320487	101860	5.55	0.53	0.11	2.35	1.86	-0.49

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G52	320488	101859	8.01	0.21	0.13	1.58	2.19	0.61
G52	320489	101877	7.89	0.13	0.09	1.13	2.11	0.98
G52	420129	000128	3.91	0.08	0.09	1.92	1.28	-0.64
G52	420468	000616	6.29	0.13	1.65	1.83	2.16	0.33
G52	420531	000704	3.07	0.06	0.05	0.83	1.09	0.26
G52	420583	000842	7.95	0.15	0.09	1.63	2.13	0.50
G52	420584	000843	8.05	0.13	3.34	2.33	2.92	0.59
G52	420599	000860	6.18	0.52	0.12	1.78	1.98	0.20
G52	420601	000862	3.93	0.11	0.10	1.20	1.31	0.11
G52	420614	000890	0.22	0.07	0.07	0.55	0.53	-0.02
G52	420633	000920	1.10	0.11	0.09	1.41	0.73	-0.68
G52	520031	100187	0.12	0.20	0.60	1.20	0.71	-0.49
G52	520063	100576	8.69	1.50	2.30	3.72	3.54	-0.18
G52	520069	100022	2.86	0.99	1.43	1.76	1.88	0.12
G52	520073	100018	8.86	0.20	1.50	1.62	2.68	1.06
G52	520075	100518	6.33	1.01	3.38	3.11	3.06	-0.05
G52	520087	100078	5.21	0.26	2.07	2.52	2.11	-0.41
G52	520090	100525	5.77	0.15	0.21	1.65	1.72	0.07
G52	520105	100210	2.99	0.89	0.60	1.82	1.66	-0.16
G52	520154	100108	6.03	0.12	0.30	1.84	1.78	-0.06
G52	520164	100569	3.34	0.26	0.50	1.79	1.36	-0.43
G52	520165	100482	5.42	0.15	0.63	1.78	1.75	-0.03
G52	520201	100303	3.78	1.45	2.68	2.31	2.62	0.31
G52	520231	100607	8.44	1.05	3.41	3.59	3.51	-0.08
G52	520247	100464	2.15	0.11	0.21	1.96	0.97	-0.99
G52	520274	100537	9.19	1.63	1.86	3.50	3.60	0.10
G52	520292	100604	4.79	0.12	5.06	1.48	2.67	1.19
G52	520322	100625	3.70	0.53	2.29	2.54	2.01	-0.53
G52	520324	100619	3.51	2.19	1.24	2.45	2.62	0.17
G52	520327	100618	4.14	0.12	0.11	1.25	1.36	0.11
G52	520343	100654	4.15	0.13	0.22	1.12	1.39	0.27
G52	620032	000013	6.20	0.15	0.24	1.38	1.82	0.44
G52	620110	000120	5.39	0.17	0.18	1.33	1.65	0.32
G52	620111	000103	5.91	0.23	0.13	1.76	1.77	0.01
G52	620112	000130	9.22	1.76	0.22	2.66	3.29	0.63
G52	620268	000316	5.40	0.17	0.15	1.33	1.64	0.31
G52	620269	000165	0.39	0.19	0.19	0.68	0.66	-0.02
G52	620280	000050	8.14	0.17	0.24	1.36	2.22	0.86
G52	620281	000230	5.51	0.17	0.19	1.04	1.68	0.64
G52	620293	000225	7.36	0.19	0.20	1.24	2.06	0.82
G52	620304	000247	5.97	0.20	0.20	1.24	1.79	0.55
G52	620307	000048	7.22	0.18	0.21	1.36	2.03	0.67
G52	620309	000146	6.97	0.16	0.17	1.28	1.96	0.68
G52	620316	000208	5.84	0.19	0.20	1.34	1.76	0.42
G52	620347	000243	2.07	0.22	0.18	0.61	1.01	0.40
G53	120040	001221	6.74	0.14	0.97	2.46	2.09	-0.37
G53	120042	001227	3.98	0.30	1.22	1.46	1.69	0.23
G53	120050	001246	5.61	0.78	1.17	2.22	2.26	0.04
G53	120055	001252	7.70	0.20	0.33	2.04	2.17	0.13
G53	120058	001255	4.67	0.80	0.33	1.95	1.88	-0.07

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MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G53	120089	001295	9.08	0.69	0.99	2.98	2.86	-0.12
G53	120101	001311	4.00	0.18	0.66	1.32	1.49	0.17
G53	120103	001313	6.70	0.18	0.43	1.96	1.98	0.02
G53	120131	001343	9.25	0.26	0.68	2.24	2.59	0.35
G53	120141	001354	7.99	0.17	0.34	2.18	2.21	0.03
G53	120160	001379	3.39	0.79	2.10	1.99	2.04	0.05
G53	120164	001384	5.44	0.89	0.58	1.90	2.14	0.24
G53	120189	001412	0.47	0.71	1.13	1.04	1.18	0.14
G53	120210	001443	4.16	0.23	0.61	1.28	1.54	0.26
G53	120212	001446	3.83	0.31	0.36	1.05	1.46	0.41
G53	120305	001666	3.70	0.29	0.54	1.00	1.46	0.46
G53	120312	001675	1.78	0.47	1.12	0.97	1.31	0.34
G53	120321	001685	7.03	1.74	1.13	3.13	3.05	-0.08
G53	220001	000924	2.19	0.25	0.58	1.28	1.15	-0.13
G53	220028	001056	6.77	1.05	0.30	2.09	2.43	0.34
G53	220030	001058	4.73	0.48	0.32	1.60	1.72	0.12
G53	220037	001072	4.10	0.14	0.14	1.48	1.37	-0.11
G53	220042	001084	2.72	0.19	0.41	1.70	1.18	-0.52
G53	220043	001085	3.69	0.17	0.38	1.37	1.36	-0.01
G53	220044	001086	0.42	0.11	0.26	0.76	0.64	-0.12
G53	220045	001087	3.88	0.13	0.36	1.07	1.37	0.30
G53	220065	001119	4.63	0.43	1.38	1.30	1.92	0.62
G53	220067	001121	0.66	0.19	0.36	0.75	0.75	0.00
G53	220076	001171	3.29	0.31	0.89	1.69	1.47	-0.22
G53	220133	001315	4.90	0.33	0.38	1.80	1.69	-0.11
G53	220175	001395	9.85	1.03	0.35	3.93	3.05	-0.88
G53	220179	001413	3.38	0.24	0.61	1.15	1.39	0.24
G53	220210	001556	5.77	0.18	0.32	2.02	1.76	-0.26
G53	220321	002100	6.14	0.93	0.23	2.02	2.22	0.20
G53	220331	000814	9.15	0.60	0.76	3.86	2.78	-1.08
G53	220332	002091	7.91	2.93	0.46	2.62	3.71	1.09
G53	220343	001890	5.74	0.29	0.25	1.74	1.80	0.06
G53	220361	001879	8.65	0.36	0.51	2.58	2.49	-0.09
G53	220380	002080	5.47	0.21	0.24	1.74	1.70	-0.04
G53	220381	002064	9.18	0.95	0.55	2.89	2.92	0.03
G53	320043	100196	2.85	0.10	0.10	0.74	1.08	0.34
G53	320150	100277	0.10	0.13	0.46	0.75	0.63	-0.12
G53	320156	100336	7.02	0.21	0.30	1.82	2.03	0.21
G53	320182	100368	6.79	0.15	0.27	1.89	1.94	0.05
G53	320188	100370	2.69	0.15	0.28	0.94	1.12	0.18
G53	320193	100391	0.78	0.10	0.23	0.93	0.70	-0.23
G53	320231	101220	0.35	0.16	0.20	1.10	0.64	-0.46
G53	320286	100493	2.48	0.11	0.35	0.97	1.07	0.10
G53	320288	100496	4.57	0.30	1.30	2.11	1.82	-0.29
G53	320289	100520	6.74	0.16	0.19	2.22	1.92	-0.30
G53	320291	100549	6.29	0.13	0.78	2.33	1.95	-0.38
G53	320299	100534	0.08	0.10	0.10	0.20	0.53	0.33
G53	320330	100626	8.29	0.20	0.46	2.30	2.31	0.01
G53	320374	100721	0.67	0.12	0.16	0.79	0.67	-0.12
G53	320402	100824	1.93	0.17	0.22	1.02	0.96	-0.06

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	320449	101623	0.82	0.22	0.54	1.20	0.85	-0.35
G53	320450	101436	9.75	0.16	0.33	1.74	2.56	0.82
G53	320455	101513	3.21	0.18	0.23	1.28	1.23	-0.05
G53	320456	101591	1.37	0.14	0.25	0.55	0.84	0.29
G53	320496	104116	2.63	0.13	0.15	1.07	1.07	-0.00
G53	320498	104118	2.32	0.16	0.16	0.96	1.02	0.06
G53	320499	104124	3.99	0.59	0.30	1.47	1.62	0.15
G53	320500	104126	4.63	0.10	0.10	1.46	1.44	-0.02
G53	420008	000045	1.04	0.21	0.11	0.95	0.78	-0.17
G53	420010	000467	3.68	0.24	0.34	1.69	1.38	-0.31
G53	420042	000037	0.88	0.12	0.07	0.55	0.69	0.14
G53	420046	000043	4.49	0.71	0.30	1.80	1.79	-0.01
G53	420150	000150	10.45	0.17	0.20	2.46	2.67	0.21
G53	420181	000181	4.57	0.75	1.60	2.76	2.14	-0.62
G53	420263	000263	0.40	0.28	0.35	0.95	0.75	-0.20
G53	420307	000326	0.45	0.12	0.24	0.31	0.65	0.34
G53	420319	000343	7.36	0.41	0.68	2.14	2.29	0.15
G53	420320	000344	4.00	0.59	0.37	1.77	1.64	-0.13
G53	420365	000431	3.13	0.14	0.25	1.82	1.20	-0.62
G53	420401	000500	9.05	2.30	2.04	2.86	3.98	1.12
G53	420405	000504	4.67	0.64	1.48	1.92	2.07	0.15
G53	420407	000506	7.15	0.32	0.59	1.86	2.18	0.32
G53	420417	000516	9.94	0.29	0.43	3.64	2.69	-0.95
G53	420512	000670	10.12	0.43	1.11	4.07	2.96	-1.11
G53	420547	000752	7.66	0.23	0.31	2.83	2.17	-0.66
G53	420561	000778	5.70	0.15	0.29	2.04	1.73	-0.31
G53	420647	201010	7.70	0.34	0.39	2.28	2.26	-0.02
G53	420648	001011	8.09	1.70	1.28	4.36	3.28	-1.08
G53	420649	001013	0.18	0.46	2.29	0.48	1.26	0.78
G53	420650	001015	7.42	1.31	3.54	3.42	3.48	0.06
G53	520027	100208	2.93	0.69	1.36	2.59	1.72	-0.87
G53	520035	100229	3.84	2.15	2.26	1.92	2.91	0.99
G53	520036	100116	6.44	1.60	2.19	3.33	3.11	-0.22
G53	520078	100043	6.93	2.51	2.60	3.83	3.80	-0.03
G53	520081	100033	8.05	0.69	1.31	2.56	2.73	0.17
G53	520134	100102	9.01	1.29	2.67	3.89	3.58	-0.31
G53	520149	100179	7.69	0.99	1.42	3.30	2.85	-0.45
G53	520197	100454	5.46	1.09	1.36	2.56	2.44	-0.12
G53	520199	100230	0.90	0.88	2.31	2.33	1.64	-0.69
G53	520219	100480	7.14	0.73	2.33	3.08	2.82	-0.26
G53	520242	100559	4.30	1.14	0.81	2.26	2.11	-0.15
G53	520284	100702	10.22	1.61	2.96	3.72	4.06	0.34
G53	520294	100578	6.62	1.16	1.81	2.95	2.82	-0.13
G53	520295	100568	5.75	0.32	1.92	2.17	2.22	0.05
G53	520344	100653	5.90	0.73	1.68	2.48	2.41	-0.07
G53	520346	100657	1.56	2.63	3.30	3.36	2.96	-0.40
G53	520350	100669	1.90	1.21	2.34	2.40	2.03	-0.37
G53	620003	000006	2.38	0.53	0.58	1.15	1.34	0.19
G53	620004	000001	2.00	0.26	0.49	1.18	1.09	-0.09
G53	620105	000124	8.33	0.77	0.64	1.90	2.67	0.77

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	620108	000073	4.19	0.50	0.72	1.18	1.72	0.54
G53	620117	000254	6.07	0.29	0.84	1.66	2.01	0.35
G53	620118	000211	7.60	1.22	1.09	2.03	2.88	0.85
G53	620119	000251	4.12	0.65	2.02	2.07	2.09	0.02
G53	620120	000236	6.08	0.24	0.39	1.32	1.88	0.56
G53	620198	000128	4.85	0.23	1.16	1.79	1.81	0.02
G53	620210	000038	0.55	0.19	0.51	0.39	0.77	0.38
G53	620230	000065	3.77	0.62	0.53	1.44	1.65	0.21
G53	620283	000308	1.95	0.47	0.75	0.82	1.26	0.44
G53	620303	000245	6.49	0.18	0.28	2.19	1.90	-0.29
G53	620317	000721	0.14	0.16	0.17	0.24	0.59	0.35
G53	620348	000113	7.29	0.53	1.01	2.60	2.42	-0.18
G53	620427	000328	4.96	0.85	0.68	1.25	2.05	0.80
G53	620433	000340	6.36	0.17	0.26	0.49	1.86	1.37
G55	120034	001209	7.62	2.55	0.37	5.15	3.43	-1.72
G55	120043	001229	4.40	0.38	0.45	2.39	1.63	-0.76
G55	120054	001251	9.45	0.60	0.20	2.24	2.70	0.46
G55	120062	001261	5.66	0.28	0.23	1.93	1.78	-0.15
G55	120107	001317	4.81	0.16	0.17	1.29	1.53	0.24
G55	120108	001318	7.01	0.99	0.34	3.39	2.46	-0.93
G55	120125	001336	7.27	0.20	0.15	1.75	2.04	0.29
G55	120175	001399	10.15	1.01	0.84	3.06	3.22	0.16
G55	120208	001439	7.08	0.23	0.14	1.87	2.01	0.14
G55	120231	001471	5.29	0.78	0.61	2.34	2.06	-0.28
G55	120262	001568	4.67	0.47	0.39	1.89	1.72	-0.17
G55	120287	001627	1.54	0.14	0.16	0.82	0.86	0.04
G55	120291	001635	4.19	0.14	0.18	1.28	1.39	0.11
G55	120292	001639	1.41	0.15	0.16	0.64	0.84	0.20
G55	120302	001661	5.78	1.82	0.67	2.96	2.74	-0.22
G55	120303	001662	5.56	0.37	0.63	1.71	1.90	0.19
G55	220014	000953	4.75	0.30	0.19	3.02	1.59	-1.43
G55	220090	001204	1.98	0.11	0.10	1.34	0.91	-0.43
G55	220097	001212	1.30	0.11	0.10	1.21	0.78	-0.43
G55	220099	001214	7.39	0.11	0.20	1.88	2.02	0.14
G55	220141	001331	2.20	0.30	0.18	1.56	1.08	-0.48
G55	220158	001359	4.21	0.46	0.25	1.69	1.59	-0.10
G55	220163	001366	0.10	0.15	0.16	0.42	0.57	0.15
G55	220169	001379	4.27	2.21	4.12	4.68	3.47	-1.21
G55	220174	001390	4.98	0.16	0.20	1.41	1.57	0.16
G55	220196	001456	4.14	0.15	0.12	1.78	1.37	-0.41
G55	220199	001488	7.96	2.20	0.41	2.84	3.32	0.48
G55	220220	001572	6.75	1.81	1.04	2.50	3.01	0.51
G55	220224	001577	6.54	0.40	0.12	2.03	1.99	-0.04
G55	220239	001596	0.25	0.22	0.16	0.34	0.64	0.30
G55	220242	001599	6.01	0.91	0.20	3.36	2.18	-1.18
G55	220265	001641	3.70	0.88	0.18	0.82	1.69	0.87
G55	220272	001669	4.65	0.31	1.62	2.28	1.92	-0.36
G55	220297	001795	4.81	0.13	0.14	1.51	1.50	-0.01
G55	220371	001887	3.16	1.84	0.36	2.05	2.15	0.10
G55	320021	100057	0.64	0.12	0.13	0.97	0.66	-0.31

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G55	320033	100090	6.32	0.11	0.16	1.93	1.80	-0.13
G55	320041	100231	4.38	0.19	0.46	1.19	1.52	0.33
G55	320050	100124	5.36	0.17	0.11	1.32	1.63	0.31
G55	320081	100232	2.87	0.09	0.10	1.34	1.08	-0.26
G55	320133	100110	5.33	0.12	0.24	0.68	1.63	0.95
G55	320157	100348	0.40	0.10	0.18	1.10	0.61	-0.49
G55	320168	100503	1.15	0.47	0.10	0.86	0.94	0.08
G55	320192	100375	2.77	0.13	0.18	0.97	1.10	0.13
G55	320202	100390	0.34	0.10	0.11	0.47	0.58	0.11
G55	320220	100535	8.30	0.13	0.14	1.67	2.20	0.53
G55	320303	100517	5.94	0.13	0.55	2.23	1.83	-0.40
G55	320316	100589	6.06	0.09	0.15	1.32	1.73	0.41
G55	320317	100581	6.22	0.10	0.14	1.35	1.77	0.42
G55	320328	100618	2.07	0.10	0.10	0.87	0.93	0.06
G55	320329	100608	8.23	0.21	0.14	1.98	2.23	0.25
G55	420057	000058	10.86	0.69	0.10	3.00	3.01	0.01
G55	420337	000381	0.99	0.07	0.07	0.52	0.69	0.17
G55	420472	000621	4.04	0.78	0.96	3.49	1.89	-1.60
G55	420473	000622	5.98	0.09	0.15	1.46	1.72	0.26
G55	420475	000624	6.54	0.08	0.07	3.39	1.81	-1.58
G55	420491	000638	7.04	0.58	0.33	3.12	2.24	-0.88
G55	420557	000763	6.87	2.64	0.19	4.55	3.28	-1.27
G55	420586	000847	7.10	0.49	0.55	2.69	2.25	-0.44
G55	420604	000866	6.23	0.47	0.11	2.16	1.96	-0.20
G55	420606	000868	3.27	0.10	0.19	0.90	1.19	0.29
G55	420608	000870	1.61	0.09	0.11	0.43	0.83	0.40
G55	420609	000871	3.69	0.31	0.52	1.03	1.47	0.44
G55	420622	000903	0.92	0.16	0.22	0.54	0.76	0.22
G55	420638	000972	4.52	0.38	0.06	1.94	1.56	-0.38
G55	520007	100235	4.40	0.09	0.12	1.40	1.39	-0.01
G55	520012	100125	2.79	1.35	1.99	2.59	2.20	-0.39
G55	520013	100064	4.25	1.46	1.22	3.47	2.37	-1.10
G55	520033	100498	6.64	1.71	1.92	2.87	3.15	0.28
G55	520056	100281	9.00	1.15	1.00	3.62	3.10	-0.52
G55	520072	100103	3.88	1.51	1.14	3.22	2.30	-0.92
G55	520089	100237	6.14	0.49	1.01	1.94	2.17	0.23
G55	520131	100555	5.44	2.17	2.05	2.98	3.19	0.21
G55	520145	100111	4.02	0.34	0.28	1.42	1.49	0.07
G55	520172	100335	3.91	1.38	1.02	2.15	2.21	0.06
G55	520192	100249	6.09	5.75	2.30	4.51	5.31	0.80
G55	520200	100444	3.43	0.53	0.25	1.91	1.47	-0.44
G55	520208	100290	10.62	4.41	3.36	4.94	5.75	0.81
G55	520217	100411	6.92	3.04	1.43	3.64	3.81	0.17
G55	520261	100593	2.22	1.06	1.49	3.18	1.81	-1.37
G55	620006	000011	5.84	1.22	0.29	2.55	2.33	-0.22
G55	620216	000091	1.35	1.43	0.49	2.00	1.59	-0.41
G55	620306	000077	4.33	1.27	1.17	2.82	2.27	-0.55
G55	620311	000135	2.38	0.15	0.16	0.61	1.03	0.42
G55	620314	000107	3.81	1.52	0.28	2.30	2.09	-0.21
G55	620329	000054	10.44	2.88	0.50	4.24	4.20	-0.04

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G55	620332	000148	2.89	0.44	0.16	0.98	1.29	0.31
G55	620336	000070	6.32	0.91	0.21	2.02	2.24	0.22
G55	620339	000085	2.92	0.32	0.43	0.84	1.29	0.45
G55	620344	000178	4.28	0.26	0.24	1.16	1.49	0.33
G55	620351	000282	2.16	0.23	0.77	0.97	1.17	0.20
G55	620428	000336	2.03	0.21	0.22	0.77	1.01	0.24
G55	620429	000198	4.29	0.33	0.33	1.78	1.55	-0.23
G55	620438	000339	4.63	0.21	0.25	1.36	1.54	0.18
G56	420639	000973	4.57	0.75	0.17	1.66	1.80	0.14
G56	520349	100704	5.01	0.11	0.78	1.64	1.68	0.04
G56	620263	000129	5.40	4.74	0.22	3.89	4.13	0.24
G57	120002	001134	5.80	0.31	0.12	1.68	1.79	0.11
G57	120003	001135	0.14	0.14	0.54	0.67	0.67	-0.00
G57	120004	001137	3.02	0.09	0.26	1.49	1.15	-0.34
G57	120021	001183	7.37	0.33	0.96	2.40	2.32	-0.08
G57	120022	001185	0.15	0.45	0.20	0.63	0.75	0.12
G57	120025	001192	5.89	0.42	0.19	1.57	1.89	0.32
G57	120030	001200	5.57	1.58	0.58	3.12	2.54	-0.58
G57	120031	001201	4.06	0.35	0.14	1.38	1.47	0.09
G57	120036	001213	5.48	0.20	0.65	2.08	1.80	-0.28
G57	120038	001217	6.87	0.45	0.19	2.60	2.10	-0.50
G57	120039	001220	4.72	0.49	0.24	1.79	1.70	-0.09
G57	120049	001242	3.92	0.14	0.28	1.47	1.36	-0.11
G57	120074	001277	4.86	1.29	1.07	2.13	2.35	0.22
G57	120076	001279	4.45	0.18	0.22	1.40	1.48	0.08
G57	120099	001309	3.42	2.87	1.25	2.51	2.97	0.46
G57	120119	001330	2.27	0.15	0.22	0.86	1.02	0.16
G57	120130	001341	8.03	0.66	0.18	2.04	2.44	0.40
G57	120133	001346	6.30	0.23	0.73	2.29	2.00	-0.29
G57	120162	001381	5.47	0.13	0.73	2.02	1.78	-0.24
G57	120166	001386	4.59	0.23	0.17	1.50	1.52	0.02
G57	120207	001438	3.41	0.97	3.55	3.16	2.49	-0.67
G57	120215	001451	5.37	0.38	1.41	1.97	2.05	0.08
G57	120230	001469	4.78	0.57	0.32	1.33	1.78	0.45
G57	120234	001476	5.78	0.95	0.22	1.73	2.16	0.43
G57	120249	001548	2.88	1.71	0.58	2.25	2.07	-0.18
G57	220018	000944	5.84	0.49	0.62	3.13	2.02	-1.11
G57	220019	000945	5.16	0.13	1.30	3.34	1.85	-1.49
G57	220029	001057	5.55	0.20	0.90	2.31	1.87	-0.44
G57	220032	001063	4.71	0.11	0.33	1.36	1.52	0.16
G57	220034	001067	8.77	0.73	0.24	2.72	2.64	-0.08
G57	220038	001073	3.60	2.10	1.50	2.08	2.65	0.57
G57	220051	001093	8.31	0.76	0.87	3.40	2.72	-0.68
G57	220057	001101	6.78	0.47	0.83	2.97	2.25	-0.72
G57	220062	001113	3.70	0.12	0.12	1.28	1.27	-0.01
G57	220064	001118	5.51	0.73	0.55	1.91	2.06	0.15
G57	220086	001200	5.50	0.43	0.83	2.66	1.97	-0.69
G57	220100	001215	7.43	0.48	0.15	1.89	2.22	0.33
G57	220138	001324	7.78	0.33	1.95	3.54	2.64	-0.90
G57	220157	001358	6.25	1.09	0.13	2.84	2.31	-0.53

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GST	220184	001429	5.08	1.82	1.45	3.36	2.78	-0.58
GST	220240	001597	3.34	0.22	1.12	1.99	1.49	-0.50
GST	220247	001604	8.46	0.32	0.60	2.53	2.45	-0.08
GST	220250	001607	4.56	0.44	0.74	2.19	1.76	-0.43
GST	220258	001623	10.02	0.23	0.39	3.31	2.66	-0.65
GST	220259	001625	4.68	0.27	0.63	1.87	1.67	-0.20
GST	220261	001628	0.83	0.14	0.48	0.86	0.79	-0.07
GST	220280	001747	5.10	0.72	0.24	1.70	1.90	0.20
GST	220339	002010	3.16	1.89	2.27	2.77	2.63	-0.14
GST	220357	001888	3.77	0.15	0.17	0.94	1.31	0.37
GST	220367	001878	6.52	1.19	1.51	3.16	2.75	-0.41
GST	320005	100022	4.91	0.11	0.43	2.08	1.58	-0.50
GST	320015	100050	0.87	0.09	0.16	0.98	0.69	-0.29
GST	320030	100087	2.34	0.12	0.31	0.71	1.04	0.33
GST	320031	100088	3.24	0.13	0.44	1.41	1.26	-0.15
GST	320036	100153	3.83	0.13	0.29	1.73	1.34	-0.39
GST	320046	100129	9.24	2.49	0.27	3.96	3.70	-0.26
GST	320093	100185	5.58	0.10	0.16	2.20	1.65	-0.55
GST	320110	100218	7.17	0.12	0.18	2.22	1.98	-0.24
GST	320113	100263	5.53	0.21	0.14	2.19	1.69	-0.50
GST	320116	100261	2.13	0.61	0.16	1.07	1.23	0.16
GST	320177	100394	5.55	0.23	0.23	1.45	1.73	0.28
GST	320180	100365	0.10	0.13	0.38	0.87	0.61	-0.26
GST	320194	100378	0.44	0.10	0.35	1.38	0.66	-0.72
GST	320195	100377	0.40	0.54	0.99	1.36	1.04	-0.32
GST	320196	100373	2.27	0.10	0.24	1.01	1.00	-0.01
GST	320197	100372	2.11	0.10	0.70	1.26	1.08	-0.18
GST	320198	100371	3.95	0.09	0.15	1.39	1.31	-0.08
GST	320199	100386	0.17	0.12	0.16	0.83	0.57	-0.26
GST	320200	100389	0.64	0.10	0.16	1.12	0.65	-0.47
GST	320226	100595	10.61	3.47	0.48	3.94	4.55	0.61
GST	320326	100588	1.43	0.09	0.31	1.11	0.84	-0.27
GST	320338	100598	7.66	0.09	0.09	1.35	2.04	0.69
GST	320345	100611	0.57	0.62	0.23	1.01	0.94	-0.07
GST	320376	100722	6.82	0.21	0.82	3.25	2.11	-1.14
GST	320501	104123	1.64	0.10	0.14	0.52	0.85	0.33
GST	420004	000004	0.90	0.03	0.37	1.01	0.72	-0.29
GST	420005	000005	6.25	0.16	0.24	2.59	1.83	-0.76
GST	420006	000006	0.25	0.10	0.06	0.51	0.55	0.04
GST	420009	000044	5.77	0.37	0.11	1.92	1.82	-0.10
GST	420013	000021	1.30	0.41	0.22	0.67	0.97	0.30
GST	420020	000011	1.04	0.41	0.66	1.32	1.02	-0.30
GST	420024	000008	2.63	0.28	0.06	0.85	1.13	0.28
GST	420026	000025	4.09	0.23	0.13	1.41	1.41	-0.00
GST	420028	000017	4.71	0.09	0.11	1.57	1.45	-0.12
GST	420029	000019	2.05	0.61	0.13	0.81	1.21	0.40
GST	420063	000062	4.86	0.28	0.77	1.65	1.74	0.09
GST	420090	000096	7.12	0.21	0.07	1.75	1.99	0.24
GST	420134	000133	4.99	0.30	0.49	1.55	1.71	0.16
GST	420174	000174	3.82	1.42	0.18	3.14	2.01	-1.13

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G57	420179	000179	9.55	2.17	0.80	3.78	3.71	-0.07
G57	420243	000243	5.41	0.66	0.11	1.84	1.90	0.06
G57	420251	000251	8.49	1.33	1.16	2.74	3.13	0.39
G57	420257	000257	5.95	0.08	0.16	1.85	1.71	-0.14
G57	420260	000260	7.56	2.27	0.71	3.10	3.35	0.25
G57	420321	000345	4.91	0.07	0.24	1.32	1.51	0.19
G57	420496	000654	10.60	1.29	1.28	6.49	3.56	-2.93
G57	420641	000978	6.21	1.18	1.11	2.63	2.58	-0.05
G57	420644	000981	4.22	2.24	1.27	2.53	2.79	0.26
G57	520006	100010	8.72	1.21	3.18	3.60	3.60	-0.00
G57	520029	100177	2.01	1.88	2.34	3.03	2.41	-0.62
G57	520030	100126	5.18	1.88	0.77	2.63	2.67	0.04
G57	520034	100266	6.00	2.67	1.30	3.00	3.39	0.39
G57	520060	100512	0.13	0.74	0.63	1.16	1.01	-0.15
G57	520065	100071	1.98	2.08	0.54	2.35	2.08	-0.27
G57	520077	100055	2.52	3.16	1.95	3.38	3.11	-0.27
G57	520099	100117	9.33	0.53	1.11	3.54	2.86	-0.68
G57	520102	100058	5.86	1.78	1.58	3.14	2.95	-0.19
G57	520108	100137	4.67	0.84	0.69	2.21	1.99	-0.22
G57	520111	100062	1.57	5.15	2.89	4.28	4.22	-0.06
G57	520122	100060	4.03	2.09	2.21	3.33	2.90	-0.43
G57	520123	100059	6.46	2.27	2.65	3.55	3.59	0.04
G57	520148	100153	4.79	1.39	0.81	2.26	2.34	0.08
G57	520179	100219	3.74	2.96	1.17	4.24	3.06	-1.18
G57	520202	100488	6.06	1.68	1.95	3.21	3.02	-0.19
G57	520205	100484	0.11	1.87	2.41	2.44	2.04	-0.40
G57	520244	100515	7.19	3.53	1.94	4.14	4.25	0.11
G57	520290	100553	6.83	2.74	1.16	3.02	3.56	0.54
G57	520296	100571	7.38	3.78	1.82	3.71	4.39	0.68
G57	520352	100674	4.42	1.00	3.19	4.40	2.62	-1.78
G57	620010	000018	4.12	0.40	0.18	1.21	1.52	0.31
G57	620102	000053	4.21	0.53	0.18	0.87	1.61	0.74
G57	620104	000040	3.80	1.73	0.83	1.91	2.33	0.42
G57	620106	000306	1.79	2.17	1.37	2.31	2.29	-0.02
G57	620109	000058	5.24	0.39	0.20	1.63	1.74	0.11
G57	620121	000186	5.03	0.37	0.32	1.79	1.72	-0.07
G57	620123	000324	2.13	0.51	0.16	0.75	1.17	0.42
G57	620124	000287	1.62	4.27	3.03	3.57	3.79	0.22
G57	620126	000294	3.45	0.16	0.34	1.02	1.29	0.27
G57	620128	000317	3.39	0.53	0.27	1.18	1.46	0.28
G57	620129	000140	6.23	1.48	0.32	2.25	2.56	0.31
G57	620130	000312	3.31	0.18	0.22	1.13	1.25	0.12
G57	620131	000305	5.60	1.36	0.40	3.13	2.39	-0.74
G57	620224	000268	3.76	1.41	1.09	2.11	2.21	0.10
G57	620247	000307	2.12	1.17	0.39	1.54	1.58	0.04
G57	620248	000167	8.36	0.86	0.38	2.67	2.67	-0.00
G57	620251	000037	0.23	0.29	0.16	0.29	0.67	0.38
G57	620254	000276	3.04	0.17	1.77	1.82	1.56	-0.26
G57	620345	000139	3.11	1.07	0.35	1.54	1.72	0.18
G57	620419	000279	4.55	0.22	1.23	1.68	1.76	0.08

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G59	120001	001130	7.04	0.43	0.98	2.12	2.31	0.19
G59	120046	001236	7.02	0.23	1.25	2.22	2.27	0.05
G59	120048	001241	5.70	0.28	1.32	2.51	2.04	-0.47
G59	120080	001283	7.12	0.14	0.71	2.68	2.11	-0.57
G59	120163	001383	1.53	0.19	1.06	1.00	1.10	0.10
G59	120227	001466	2.96	0.24	0.75	0.93	1.34	0.41
G59	120327	001691	8.49	0.28	0.96	2.20	2.52	0.32
G59	320004	100016	6.90	0.14	0.67	3.15	2.05	-1.10
G59	320085	100220	0.09	0.13	0.86	1.05	0.73	-0.32
G59	320207	100393	5.84	0.14	0.91	2.61	1.90	-0.71
G59	320274	101556	2.70	0.11	1.47	1.43	1.39	-0.04
G59	320324	100614	4.62	0.16	1.08	2.13	1.70	-0.43
G59	320441	101124	10.99	0.42	1.69	4.04	3.27	-0.77
G59	320443	101555	10.02	1.10	1.69	4.66	3.44	-1.22
G59	420387	000484	0.15	0.21	1.92	1.78	1.04	-0.74
G59	420400	000499	5.17	0.25	0.53	2.15	1.73	-0.42
G59	420426	000525	6.07	0.11	0.52	2.25	1.84	-0.41
G59	420442	000563	5.74	0.12	0.24	2.11	1.71	-0.40
G59	420474	000623	6.92	0.16	0.70	3.05	2.08	-0.97
G59	420505	000663	1.03	0.22	1.46	1.33	1.11	-0.22
G59	420524	000697	6.03	0.17	0.91	2.16	1.95	-0.21
G59	520093	100086	1.64	1.59	3.31	3.32	2.41	-0.91
G59	520094	100066	5.86	1.69	3.28	3.98	3.31	-0.67
G59	520115	100554	2.54	1.12	2.36	3.05	2.11	-0.94
G59	520187	100333	7.34	2.31	3.47	4.40	3.98	-0.42
G59	520257	100592	2.64	0.66	2.61	2.54	1.94	-0.60
G59	520271	100443	4.18	0.59	2.17	2.17	2.11	-0.06
G59	520288	100552	5.81	1.54	2.79	3.33	3.10	-0.23
G59	520306	100598	0.3	0.92	2.64	2.09	1.62	-0.47
G59	620103	000055	0.8	0.16	0.41	0.73	0.79	0.06
G59	620290	000169	6.21	0.23	0.97	1.82	2.04	0.22
G59	620310	000323	4.10	0.34	1.09	1.46	1.70	0.24
G59	620315	000222	1.71	0.20	1.20	1.14	1.17	0.03
G59	620326	000331	1.57	0.20	1.05	1.18	1.11	-0.07
G59	620335	000076	3.84	0.14	0.78	1.34	1.47	0.13
G60	120105	001315	8.47	1.36	0.22	2.19	2.92	0.73
G60	120192	001415	8.98	0.42	0.22	2.69	2.51	-0.18
G60	120229	001468	2.00	0.22	0.26	0.72	1.02	0.30
G60	220318	000836	7.72	0.17	0.22	2.20	2.13	-0.07
G60	220352	001945	4.81	0.18	0.17	1.31	1.54	0.23
G60	220366	001900	2.39	0.18	0.19	0.79	1.06	0.27
G60	320089	100287	6.10	0.16	0.19	1.40	1.79	0.39
G60	320432	100951	5.31	0.12	0.13	1.40	1.59	0.19
G60	320437	101344	5.49	0.16	0.16	1.11	1.66	0.55
G60	420645	000982	1.85	0.13	0.22	0.71	0.93	0.22
G60	520316	100611	2.91	2.43	2.60	3.56	2.95	-0.61
G60	520340	100650	2.37	0.91	1.32	1.91	1.72	-0.19
G60	520351	100675	2.11	0.10	0.18	2.17	0.95	-1.22
G61	120024	001191	2.61	0.24	0.20	1.21	1.13	-0.08
G61	120053	001249	2.18	0.48	0.27	1.05	1.19	0.14

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G61	120060	001259	4.26	1.52	0.66	2.21	2.27	0.06
G61	120077	001280	0.56	0.20	0.28	0.42	0.72	0.30
G61	120078	001281	2.62	0.40	0.45	0.87	1.28	0.41
G61	120123	001334	2.63	0.26	0.21	0.84	1.15	0.31
G61	120174	001398	0.43	0.38	0.22	0.49	0.78	0.29
G61	120322	001686	1.14	0.14	0.21	0.95	0.79	-0.16
G61	120333	001698	0.72	0.19	0.18	0.42	0.72	0.30
G61	120537	001805	6.83	1.20	0.26	1.93	2.51	0.58
G61	220072	001140	2.81	0.36	0.19	1.38	1.24	-0.14
G61	220083	001196	2.27	0.16	0.19	1.33	1.02	-0.31
G61	220085	001198	2.14	0.32	0.12	0.96	1.06	0.10
G61	220094	001209	0.33	0.20	0.27	0.89	0.67	-0.22
G61	220095	001210	4.46	0.49	0.83	2.60	1.79	-0.81
G61	220096	001211	6.59	1.05	0.17	2.59	2.36	-0.23
G61	220166	001373	7.45	0.34	0.24	2.92	2.17	-0.75
G61	220191	001446	4.78	0.34	0.19	1.34	1.62	0.28
G61	220292	000931	8.90	0.35	0.23	2.94	2.46	-0.48
G61	220305	001794	4.35	0.89	0.34	1.52	1.87	0.35
G61	320028	100070	5.63	0.45	0.27	1.82	1.87	0.05
G61	320032	100089	1.07	0.16	0.18	0.98	0.78	-0.20
G61	320170	100360	0.31	0.14	0.12	0.94	0.60	-0.34
G61	320176	100344	6.25	0.70	0.19	2.60	2.11	-0.49
G61	320186	100362	1.05	0.16	0.19	0.64	0.78	0.14
G61	320271	100474	2.43	1.32	0.35	1.60	1.72	0.12
G61	320318	100593	2.84	0.68	0.30	1.62	1.44	-0.18
G61	320384	100887	3.43	0.52	0.45	2.51	1.51	-1.00
G61	320413	101018	1.70	0.24	0.28	1.31	0.97	-0.34
G61	320493	104115	5.18	1.97	0.69	3.77	2.70	-1.07
G61	420043	000042	3.32	0.37	0.14	1.26	1.33	0.07
G61	420062	000060	3.78	0.38	0.13	1.20	1.43	0.23
G61	420081	000083	0.07	0.14	0.11	0.41	0.55	0.14
G61	420096	000094	1.75	0.17	0.10	0.69	0.90	0.21
G61	420170	000170	4.66	0.38	0.10	1.42	1.60	0.18
G61	420187	000187	3.48	0.31	0.11	1.44	1.33	-0.11
G61	420188	000188	1.90	0.35	0.59	0.89	1.14	0.25
G61	420205	000205	0.92	0.14	0.15	0.51	0.73	0.22
G61	420336	000380	4.03	0.26	0.10	1.53	1.41	-0.12
G61	520039	100420	2.40	1.82	9.53	3.52	4.18	0.66
G61	520041	100278	5.97	1.30	7.04	3.12	4.02	0.90
G61	520097	100154	1.45	2.79	3.32	3.21	3.02	-0.19
G61	520144	100581	4.56	1.83	0.47	2.20	2.45	0.25
G61	520152	100089	6.86	3.81	2.95	4.78	4.57	-0.21
G61	520156	100513	0.54	0.68	0.29	0.77	0.98	0.21
G61	520170	100241	10.79	2.24	5.68	5.40	5.17	-0.23
G61	520180	100282	3.02	1.01	0.90	2.20	1.80	-0.40
G61	520230	100575	10.80	0.38	8.49	4.07	4.84	0.77
G61	520286	100565	1.29	1.24	0.75	1.92	1.54	-0.38
G61	620002	000017	2.28	0.23	0.24	0.46	1.07	0.61
G61	620014	000027	1.77	0.18	0.22	0.48	0.94	0.46
G61	620027	000012	1.93	0.26	0.20	0.92	1.01	0.09

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE			COMPOSITE VALUES		
			IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G61	620132	000045	0.15	0.19	0.20	0.31	0.61	0.30
G61	620133	000144	3.00	0.45	0.24	0.88	1.34	0.46
G61	620137	000347	3.70	0.29	0.17	0.88	1.37	0.49
G61	620253	000114	1.93	0.30	0.21	1.22	1.03	-0.19
G61	620328	000086	2.55	0.36	0.19	0.96	1.18	0.22
G61	620418	000311	4.22	0.20	0.20	0.93	1.44	0.51
G62	120009	001158	0.30	0.23	0.26	0.43	0.68	0.25
G62	120084	001288	0.22	0.23	0.13	0.46	0.63	0.17
G62	120219	001457	3.59	0.65	0.33	1.34	1.58	0.24
G62	120298	001657	0.56	0.49	0.17	0.63	0.85	0.22
G62	120311	001674	1.19	1.47	0.18	0.99	1.51	0.52
G62	120331	001695	2.66	0.65	0.32	1.45	1.39	-0.06
G62	120456	001803	0.47	0.32	0.30	0.42	0.77	0.35
G62	220084	001197	0.72	0.30	0.14	0.84	0.77	-0.07
G62	220103	001224	5.13	0.96	0.14	2.36	2.01	-0.35
G62	220145	001338	0.28	0.30	0.14	0.83	0.68	-0.15
G62	220302	001800	0.30	0.29	0.19	0.46	0.70	0.24
G62	220304	001864	6.17	3.44	2.03	3.34	4.01	0.67
G62	220319	000819	3.22	0.47	0.19	1.38	1.38	-0.00
G62	320037	100168	2.03	0.81	0.33	1.34	1.36	0.02
G62	320094	100195	1.39	0.14	0.11	0.78	0.81	0.03
G62	320209	100399	0.19	0.11	0.15	0.59	0.57	-0.02
G62	320240	101314	4.21	1.62	0.15	1.99	2.19	0.20
G62	320347	101343	4.76	0.46	0.18	2.25	1.68	-0.57
G62	320448	101340	2.02	0.46	0.10	0.89	1.11	0.22
G62	320482	101514	4.73	0.58	3.88	3.62	2.62	-1.00
G62	420261	000261	1.26	0.19	0.10	0.81	0.81	0.00
G62	420392	000491	2.05	0.17	0.08	0.93	0.96	0.03
G62	420415	000514	0.71	0.22	0.33	1.29	0.77	-0.52
G62	420437	000558	6.20	0.48	0.19	2.52	1.98	-0.54
G62	420509	000667	3.74	0.23	0.10	1.36	1.33	-0.03
G62	420634	000921	1.96	0.80	0.09	0.77	1.28	0.51
G62	520155	100567	5.26	0.92	0.63	2.32	2.14	-0.18
G62	520163	100541	0.10	0.89	0.19	0.76	0.98	0.22
G62	520213	100301	2.34	0.94	2.01	1.83	1.89	0.06
G62	520236	100560	2.22	0.68	0.26	1.27	1.31	0.04
G62	520277	100517	2.89	0.59	0.90	1.59	1.55	-0.04
G62	520282	100520	1.78	1.11	0.49	1.55	1.51	-0.04
G62	620134	000092	4.27	0.34	0.18	1.32	1.52	0.20
G62	620135	000090	1.75	0.49	0.17	0.60	1.09	0.49
G62	620139	000284	3.24	0.18	0.18	0.77	1.22	0.45
G62	620219	000301	0.18	0.17	0.16	0.24	0.60	0.36
G62	620270	000293	3.22	0.20	0.17	0.81	1.23	0.42
G62	620295	000043	-1.00	-1.00	-1.00	0.78		
G63	420602	000863	0.58	0.70	2.59	0.96	1.55	0.59
G64	120063	001263	6.85	0.24	0.16	1.82	1.98	0.16
G64	120113	001323	0.87	0.17	0.16	1.28	0.74	-0.54
G64	320010	100038	6.77	0.10	0.12	1.21	1.87	0.66
G64	320232	100404	1.81	0.14	0.15	0.92	0.91	-0.01
G64	420094	000091	7.30	0.32	0.27	1.93	2.14	0.21

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G64	620232	000141	1.88	0.18	0.21	0.74	0.96	0.22
G65	220356	001883	10.12	0.83	0.41	3.28	3.01	-0.27
G65	520357	100701	3.52	0.37	3.02	1.76	2.06	0.30
G66	120016	001167	1.34	1.04	0.37	1.18	1.35	0.17
G66	120018	001169	5.32	2.98	1.68	3.02	3.51	0.49
G66	120037	001216	2.33	1.41	0.39	1.34	1.76	0.42
G66	120085	001289	3.92	0.87	1.08	1.50	1.95	0.45
G66	120090	001296	5.65	0.70	0.37	1.77	2.03	0.26
G66	120122	001333	6.55	1.27	0.25	2.21	2.49	0.28
G66	120126	001337	9.59	1.76	0.26	2.83	3.37	0.54
G66	120143	001356	6.04	1.95	0.80	2.69	2.89	0.20
G66	120144	001357	3.63	0.87	0.28	1.30	1.70	0.40
G66	120228	001467	2.70	0.67	0.25	1.08	1.40	0.32
G66	220105	001229	3.78	0.58	0.28	2.05	1.57	-0.48
G66	220143	001336	4.59	0.58	0.16	1.51	1.71	0.20
G66	220146	001339	6.17	0.69	0.94	2.83	2.27	-0.56
G66	220149	001345	2.06	0.84	0.25	1.33	1.36	0.03
G66	220155	001356	10.29	1.86	0.55	3.43	3.63	0.20
G66	220160	001361	5.93	1.15	0.35	2.55	2.33	-0.22
G66	220165	001370	0.55	0.27	0.14	0.61	0.72	0.11
G66	220188	001438	1.42	1.37	0.60	1.33	1.60	0.27
G66	220256	001614	3.49	0.16	0.16	0.68	1.26	0.58
G66	320179	100374	4.90	0.63	0.15	1.35	1.79	0.44
G66	320253	100707	1.63	0.54	0.28	0.81	1.12	0.31
G66	320302	101285	2.82	0.50	0.46	1.17	1.38	0.21
G66	320304	101322	0.27	0.47	0.15	0.64	0.78	0.14
G66	320342	100597	2.67	1.11	0.21	1.15	1.62	0.47
G66	320353	101149	8.03	0.72	0.14	2.58	2.47	-0.11
G66	320359	100641	1.29	0.28	0.39	0.77	0.94	0.17
G66	420049	000047	3.48	1.36	0.35	1.75	1.95	0.20
G66	420055	000056	5.76	0.73	1.10	1.04	2.25	1.21
G66	420112	000113	3.99	1.20	0.97	2.50	3.32	0.82
G66	420390	000489	2.92	1.75	1.21	1.65	2.25	0.60
G66	420461	000609	6.89	0.99	0.39	2.63	2.44	-0.19
G66	420467	000615	5.69	0.86	0.57	2.12	2.18	0.06
G66	420483	000631	5.03	0.78	0.17	1.62	1.90	0.28
G66	420493	000651	1.85	1.26	0.39	1.31	1.58	0.27
G66	420494	000652	3.26	0.95	0.27	1.38	1.66	0.28
G66	420564	000781	2.04	0.50	0.31	0.93	1.19	0.26
G66	420635	000969	8.35	1.19	0.56	2.92	2.89	-0.03
G66	520064	100014	3.05	2.06	10.19	3.60	4.59	0.99
G66	520133	100127	2.70	2.70	6.90	3.09	4.08	0.99
G66	520196	100677	0.81	2.27	3.27	4.29	2.60	-1.69
G66	520275	100502	7.75	3.11	4.12	4.37	4.65	0.28
G66	520333	100664	3.67	1.74	1.96	2.88	2.58	-0.30
G66	520341	100663	1.89	1.69	9.41	3.90	3.97	0.07
G66	520347	100667	3.70	1.31	1.61	2.67	2.27	-0.40
G66	520348	100665	5.44	2.20	1.61	3.70	3.10	-0.60
G66	520370	100775	2.44	3.51	2.91	3.01	3.51	0.50
G66	620143	000041	4.55	0.95	0.21	1.52	1.91	0.39

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G66	620144	000207	7.97	0.28	1.17	2.01	2.46	0.45
G66	620145	000298	0.58	1.65	1.19	1.29	1.72	0.43
G66	620146	000325	5.90	1.37	0.53	1.45	2.48	1.03
G66	620147	000264	2.96	0.85	0.19	1.11	1.53	0.42
G66	620148	000176	1.48	0.53	0.22	0.90	1.07	0.17
G66	620149	000278	7.36	0.73	0.99	1.77	2.54	0.77
G66	620151	000302	1.14	1.05	0.58	0.93	1.37	0.44
G66	620318	000289	0.91	0.81	0.24	0.76	1.11	0.35
G66	620446	000298	1.08	0.65	1.34	0.88	1.32	0.44
G67	120073	001275	6.46	0.57	0.13	1.82	2.07	0.25
G67	120120	001331	6.00	0.68	0.15	1.39	2.04	0.65
G67	120142	001355	4.95	0.81	0.34	1.93	1.95	0.02
G67	120193	001416	6.71	1.78	0.26	2.06	2.80	0.74
G67	120203	001426	2.32	0.64	0.19	1.16	1.29	0.13
G67	120211	001444	0.54	0.13	0.15	0.40	0.65	0.25
G67	120214	001450	2.18	0.83	0.46	1.80	1.43	-0.37
G67	220144	001337	2.39	0.20	0.15	0.72	1.06	0.34
G67	220181	001415	1.03	0.31	0.15	0.67	0.84	0.17
G67	220273	000679	3.01	0.51	0.29	1.23	1.38	0.15
G67	220315	001802	0.23	0.12	0.13	0.51	0.58	0.07
G67	220372	001893	0.92	0.20	0.15	0.44	0.76	0.32
G67	320020	100055	1.81	0.58	0.12	0.58	1.14	0.56
G67	320119	100214	0.89	0.20	0.11	0.34	0.75	0.41
G67	320235	100425	2.16	0.74	0.14	0.67	1.30	0.63
G67	320327	100686	0.08	0.10	0.10	0.16	0.53	0.37
G67	320335	100619	0.11	0.10	0.10	0.17	0.53	0.36
G67	320343	100689	1.32	0.67	0.35	0.67	1.14	0.47
G67	320364	100629	0.12	0.11	0.09	0.23	0.54	0.31
G67	420115	000118	4.33	0.15	0.06	0.97	1.40	0.43
G67	420457	000605	4.74	0.10	0.09	1.25	1.46	0.21
G67	420581	000840	0.31	0.54	0.07	0.49	0.80	0.31
G67	420590	000851	1.98	0.25	0.09	0.79	0.99	0.20
G67	420630	000916	3.25	0.50	0.11	1.13	1.38	0.25
G67	520054	100016	2.73	1.84	5.11	2.81	3.20	0.39
G67	520092	100106	3.58	1.92	1.87	1.95	2.64	0.69
G67	520130	100096	3.12	2.48	3.20	2.89	3.16	0.27
G67	520237	100318	3.69	2.88	1.74	2.58	3.14	0.56
G67	520342	100651	1.05	0.82	0.64	1.41	1.24	-0.17
G67	520369	100706	2.08	1.22	0.43	1.72	1.61	-0.11
G67	520371	100773	3.49	1.91	0.26	2.25	2.23	-0.02
G67	620154	000145	0.82	0.22	0.17	0.43	0.76	0.33
G67	620212	000171	8.55	1.57	0.65	2.74	3.15	0.41
G67	620221	000152	1.41	0.29	0.23	0.46	0.93	0.47
G67	620237	000060	0.47	0.18	0.17	0.48	0.67	0.19
G67	620276	000292	3.44	0.47	0.16	0.71	1.42	0.71
G68	120032	001203	3.98	0.11	0.11	1.07	1.32	0.25
G68	120171	001395	2.83	0.14	0.15	0.99	1.11	0.12
G68	120257	001559	3.66	0.35	0.19	1.09	1.40	0.31
G68	120285	001622	0.12	0.15	0.16	0.61	0.58	-0.03
G68	120332	001697	6.67	0.15	0.14	1.58	1.89	0.31

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G68	I20334	001699	0.27	0.48	0.30	0.66	0.82	0.16
G68	220104	001227	9.51	3.24	0.69	3.88	4.26	0.38
G68	220128	001307	0.75	0.49	0.18	1.33	0.89	-0.44
G68	220135	001319	7.58	1.41	0.16	2.14	2.75	0.61
G68	220139	001328	2.87	0.16	0.12	1.10	1.12	0.02
G68	220153	001352	3.82	0.15	0.15	1.43	1.32	-0.11
G68	220214	001562	6.20	0.36	0.17	1.64	1.91	0.27
G68	220363	001902	1.05	0.12	0.12	0.31	0.74	0.43
G68	220364	001885	2.61	0.15	0.16	0.79	1.08	0.29
G68	320058	100152	1.57	0.15	0.16	0.89	0.87	-0.02
G68	320187	100516	0.27	0.17	0.15	0.33	0.61	0.28
G68	320205	100384	2.24	0.13	0.13	0.77	0.98	0.21
G68	320210	100395	0.47	0.13	0.13	0.62	0.63	0.01
G68	320322	100579	0.09	0.11	0.11	0.30	0.54	0.24
G68	320370	100826	7.09	0.21	0.12	1.66	2.00	0.34
G68	320425	101291	1.10	1.43	0.57	2.43	1.56	-0.87
G68	320483	101622	2.93	0.09	0.09	0.65	1.09	0.44
G68	420109	000110	6.22	0.19	0.68	1.80	1.95	0.15
G68	420190	000190	5.16	0.14	0.30	1.18	1.62	0.44
G68	420191	000191	5.75	1.59	0.45	3.34	2.55	-0.79
G68	420443	000572	5.45	0.10	0.10	1.28	1.60	0.32
G68	420458	000606	2.08	0.14	0.12	0.72	0.95	0.23
G68	420580	000839	3.40	0.07	0.07	1.60	1.17	-0.43
G68	420591	000852	8.35	0.16	0.09	1.55	2.22	0.67
G68	520055	100011	3.43	0.13	0.15	1.79	1.23	-0.56
G68	520136	100162	2.44	0.78	1.89	3.16	1.80	-1.36
G68	520143	100494	0.50	0.71	0.40	1.85	1.01	-0.84
G68	520153	100092	4.46	0.11	0.12	1.65	1.42	-0.23
G68	520182	100539	0.09	0.23	3.47	1.85	1.40	-0.45
G68	520228	100608	2.17	2.09	2.07	2.71	2.49	-0.22
G68	520298	100582	4.46	2.77	6.96	5.16	4.49	-0.67
G68	620136	000093	8.80	0.23	0.18	1.99	2.37	0.38
G68	620140	000346	0.13	0.17	0.19	0.25	0.60	0.35
G68	620330	000069	6.00	0.50	0.19	1.87	1.95	0.08
G68	620403	000218	1.50	0.15	0.15	0.56	0.85	0.29
G70	120010	001159	4.69	0.18	0.13	5.59	1.50	-4.09
G70	220033	001066	0.69	0.15	0.17	0.73	0.69	-0.04
G70	220338	001906	4.96	0.71	0.52	1.71	1.94	0.23
G70	320029	100086	2.30	0.09	0.10	0.47	0.97	0.50
G70	320306	100563	0.09	0.09	0.09	0.20	0.52	0.32
G70	320387	100798	0.25	0.11	0.13	0.38	0.57	0.19
G70	320481	101487	4.88	0.46	0.14	0.71	1.69	0.98
G70	420397	000496	0.23	0.07	0.08	0.31	0.54	0.23
G70	420398	000497	0.10	0.12	0.55	0.59	0.65	0.06
G70	420408	000507	5.56	0.95	1.07	1.83	2.32	0.49
G70	420444	000565	3.34	0.09	0.11	1.08	1.18	0.10
G70	420445	000566	7.16	0.10	0.50	1.89	2.04	0.15
G70	520137	100120	2.85	0.12	0.83	1.44	1.27	-0.17
G70	520138	100558	4.13	1.22	2.39	2.96	2.49	-0.47
G70	520158	100160	6.39	1.86	2.27	3.18	3.26	0.08

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G70	520169	100175	0.10	0.43	1.89	1.36	1.14	-0.22
G70	620013	000026	4.64	0.18	0.19	0.88	1.51	0.63
G70	620142	000310	0.12	0.19	0.17	1.08	0.60	-0.48
G70	620274	000030	0.42	0.48	0.21	0.51	0.83	0.32
G70	620321	000273	0.19	0.19	0.20	0.46	0.62	0.16
G71	120094	001301	0.90	0.24	0.19	0.72	0.79	0.07
G71	120154	001373	1.55	0.27	0.22	0.96	0.94	-0.02
G71	120217	001455	0.58	0.13	0.14	0.69	0.65	-0.04
G71	120278	001592	4.39	0.19	0.17	1.70	1.46	-0.24
G71	120309	001672	0.46	0.16	0.16	0.89	0.65	-0.24
G71	120314	001678	7.51	0.23	0.18	2.28	2.11	-0.17
G71	120318	001682	3.05	0.29	0.17	2.26	1.24	-1.02
G71	220015	000955	1.43	0.85	0.50	2.05	1.30	-0.75
G71	220046	001088	2.69	0.26	0.26	1.27	1.18	-0.09
G71	220048	001090	9.84	1.33	0.92	3.83	3.35	-0.48
G71	220053	001095	5.03	0.15	0.14	1.77	1.56	-0.21
G71	220069	001129	7.18	0.29	0.13	1.93	2.06	0.13
G71	220301	001872	6.22	0.15	0.16	1.61	1.80	0.19
G71	320098	100248	1.27	0.19	0.16	0.60	0.83	0.23
G71	320171	100342	9.36	1.13	0.17	3.49	2.96	-0.53
G71	320178	100366	3.71	0.10	0.11	0.84	1.26	0.42
G71	320280	100472	5.95	0.46	0.17	1.91	1.92	0.01
G71	320415	100889	8.09	0.22	0.13	2.29	2.21	-0.08
G71	420171	000171	3.84	1.86	0.75	2.73	2.39	-0.34
G71	420469	000617	4.49	0.51	0.15	4.58	1.65	-2.93
G71	420476	000618	7.30	0.22	0.11	3.80	2.04	-1.76
G71	420497	000655	3.98	0.65	0.09	2.28	1.60	-0.68
G71	520025	100163	1.88	1.21	2.26	1.91	2.00	0.09
G71	520028	100019	10.02	1.35	1.32	3.94	3.49	-0.45
G71	520106	100265	2.04	1.96	8.56	4.11	3.95	-0.16
G71	520142	100085	1.00	1.31	8.77	4.31	3.44	-0.87
G71	520280	100548	7.26	0.68	0.46	1.99	2.37	0.38
G71	620170	000291	4.11	0.20	0.17	1.38	1.41	0.03
G71	620171	000118	1.41	0.85	0.23	0.94	1.23	0.29
G71	620271	000111	0.41	0.20	0.19	0.74	0.67	-0.07
G71	620301	000223	5.39	0.39	0.46	1.62	1.84	0.22
G71	620322	000031	3.19	0.30	0.18	1.09	1.28	0.19
G72	120221	001459	4.02	0.18	0.19	1.09	1.38	0.29
G72	120236	001481	4.07	0.25	0.28	1.05	1.45	0.40
G72	220106	001230	2.14	0.14	0.13	0.76	0.97	0.21
G72	220177	001410	5.52	0.14	0.14	1.61	1.65	0.04
G72	220180	001414	0.52	0.16	0.16	0.47	0.66	0.19
G72	320061	100127	0.65	0.13	0.12	0.62	0.66	0.04
G72	320163	100431	2.19	0.12	0.14	0.57	0.97	0.40
G72	320352	100625	1.17	0.13	0.14	0.34	0.77	0.43
G72	320433	101096	3.25	6.29	4.25	4.20	5.50	1.30
G72	420589	000850	3.97	0.32	0.09	0.74	1.42	0.68
G72	520096	100302	4.90	2.91	3.36	3.24	3.79	0.55
G72	520246	100421	2.96	2.43	3.05	3.68	3.10	-0.58
G72	620152	000167	1.55	0.78	0.28	0.87	1.23	0.36

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G72	620277	000177	0.30	0.23	0.18	0.43	0.66	0.23
G73	120102	001312	5.97	0.67	0.27	1.94	2.06	0.12
G73	120127	001338	0.52	0.39	0.27	0.76	0.81	0.05
G73	120138	001351	7.00	2.34	2.54	3.61	3.71	0.10
G73	120169	001389	0.11	0.25	0.14	0.49	0.62	0.13
G73	120225	001464	0.40	0.38	0.23	0.56	0.77	0.21
G73	220119	001262	0.71	0.21	0.14	0.67	0.72	0.05
G73	220187	001435	3.17	1.08	0.80	1.87	1.84	-0.03
G73	220323	000811	1.95	1.00	0.37	1.28	1.45	0.17
G73	220344	001892	1.93	0.79	0.22	1.18	1.30	0.12
G73	220369	001871	1.16	0.24	0.14	0.88	0.83	-0.05
G73	320038	100171	1.42	0.45	0.17	0.72	1.00	0.28
G73	320051	100385	1.92	1.29	1.40	1.56	1.85	0.29
G73	320155	100302	0.16	0.31	0.10	0.55	0.66	0.11
G73	320365	100638	0.15	0.77	0.32	0.47	0.96	0.49
G73	420168	000168	3.93	0.18	0.12	0.85	1.35	0.50
G73	420290	000304	2.46	1.91	0.71	2.62	2.13	-0.49
G73	420423	000522	2.91	0.52	0.20	1.27	1.35	0.08
G73	420453	000576	1.97	0.81	0.23	1.12	1.32	0.20
G73	420592	000853	6.59	1.70	1.26	2.99	2.98	-0.01
G73	420623	000912	5.33	1.92	0.81	3.62	2.73	-0.89
G73	520038	100020	4.67	1.99	2.92	2.95	3.14	0.19
G73	520059	100199	3.41	2.41	1.07	2.95	2.67	-0.28
G73	520103	100178	4.85	2.69	1.57	3.24	3.23	-0.01
G73	520135	100583	2.73	2.67	1.72	3.07	2.83	-0.24
G73	620153	000299	1.85	0.67	0.64	1.07	1.32	0.25
G73	620208	000115	2.11	0.52	0.41	1.03	1.24	0.21
G73	620324	000168	2.90	1.22	0.47	1.29	1.79	0.50
G74	120109	001319	6.39	1.94	0.36	2.53	2.85	0.32
G74	120139	001352	8.14	1.68	0.14	3.37	3.01	-0.36
G74	120150	001368	3.95	0.91	0.21	2.32	1.77	-0.55
G74	120167	001387	1.71	0.24	0.42	1.11	1.01	-0.10
G74	120259	001564	3.01	1.07	0.21	1.86	1.67	-0.19
G74	120335	001700	5.47	2.22	0.24	2.52	2.79	0.27
G74	120419	001817	4.46	1.09	0.49	2.24	2.03	-0.21
G74	120532	001810	4.35	1.54	1.11	2.07	2.40	0.33
G74	220043	001091	5.58	1.81	0.23	3.43	2.59	-0.84
G74	220050	001092	5.41	1.42	0.16	2.69	2.36	-0.33
G74	220052	001094	6.22	1.73	0.27	2.19	2.68	0.49
G74	220055	001098	6.32	1.82	0.18	3.03	2.73	-0.30
G74	220056	001099	9.78	2.02	0.39	3.81	3.58	-0.23
G74	220075	001153	8.97	2.28	0.47	4.26	3.58	-0.68
G74	220134	001316	5.85	2.83	0.56	3.50	3.27	-0.23
G74	320164	100367	3.26	0.59	0.11	1.71	1.43	-0.28
G74	320259	100424	7.48	1.78	0.25	2.88	2.96	0.08
G74	320380	100709	6.37	2.10	0.33	2.71	2.92	0.21
G74	320403	100828	2.15	0.52	0.34	1.95	1.23	-0.72
G74	320457	101462	4.98	0.58	0.13	1.94	1.78	-0.16
G74	320458	101442	3.41	0.68	0.12	1.74	1.51	-0.23
G74	320486	101837	2.19	0.32	0.11	1.25	1.07	-0.18

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G74	320492	102947	1.60	0.23	0.17	0.84	0.92	0.08
G74	420015	000026	3.30	1.58	0.20	2.43	2.00	-0.43
G74	420023	000027	8.82	1.27	0.34	2.75	2.97	0.22
G74	420033	000007	0.70	1.74	1.01	1.92	1.75	-0.17
G74	420036	000033	10.42	2.25	0.0	3.73		
G74	420050	000048	8.94	1.71	0.62	4.04	3.30	-0.74
G74	420066	000073	2.38	1.53	0.44	1.66	1.84	0.18
G74	420068	000072	6.34	1.94	0.23	2.94	2.81	-0.13
G74	420100	000101	9.06	1.17	0.51	2.87	3.01	0.14
G74	520023	100145	8.20	4.66	10.78	7.39	7.17	-0.22
G74	520024	100110	10.12	2.47	8.03	4.38	5.72	1.34
G74	520159	100523	3.43	3.53	1.77	2.34	3.45	1.11
G74	520279	100529	3.00	1.86	4.21	2.06	3.05	0.99
G74	520334	100631	8.61	3.40	2.67	4.73	4.64	-0.09
G74	520358	100695	6.15	2.72	2.69	4.02	3.78	-0.24
G74	520359	100698	3.59	2.60	1.99	2.29	3.03	0.74
G74	520364	100705	4.90	3.22	2.05	3.82	3.65	-0.17
G74	620005	000020	4.92	0.41	0.68	2.89	1.80	-1.09
G74	620163	000234	3.41	0.67	0.25	1.46	1.54	0.08
G74	620164	000275	7.41	1.03	0.28	2.09	2.54	0.45
G74	620166	000173	8.55	1.52	0.24	3.21	3.03	-0.18
G74	620167	000121	1.97	0.72	0.21	0.95	1.27	0.32
G74	620168	000209	4.98	0.18	0.18	1.53	1.57	0.04
G74	620169	000267	5.39	0.85	0.23	1.52	2.03	0.51
G74	620409	000322	2.26	0.68	0.40	1.41	1.35	-0.06
G74	620410	000319	0.97	0.61	0.23	0.61	1.01	0.40
G75	120121	001332	6.62	0.51	0.17	2.10	2.08	-0.02
G75	120323	001687	1.35	0.40	0.19	0.91	0.97	0.06
G75	120405	001718	0.58	0.48	0.60	0.84	0.95	0.11
G75	120412	001758	0.90	0.51	0.38	0.76	0.98	0.22
G75	120413	001799	2.44	1.47	0.68	1.50	1.93	0.43
G75	120415	001787	1.31	1.01	0.61	1.32	1.39	0.07
G75	120420	001719	2.21	0.24	0.24	1.06	1.06	0.00
G75	120424	001756	4.94	0.16	0.14	1.27	1.54	0.27
G75	220003	000931	0.83	0.17	0.14	0.48	0.72	0.24
G75	220035	001068	0.78	0.16	0.14	0.74	0.71	-0.03
G75	220058	001102	5.22	0.43	0.31	1.71	1.79	0.08
G75	220060	001105	4.93	0.19	0.23	2.28	1.58	-0.70
G75	220061	001106	1.91	0.41	0.19	2.87	1.08	-1.79
G75	220068	001122	3.50	0.21	0.13	1.29	1.28	-0.01
G75	220070	001130	0.31	0.21	0.15	0.95	0.64	-0.31
G75	220077	001175	4.25	0.60	0.25	1.58	1.67	0.09
G75	220078	001176	1.10	0.20	0.20	0.93	0.81	-0.12
G75	220079	001190	1.91	0.22	0.23	1.04	0.99	-0.05
G75	220122	001288	0.85	0.25	0.30	0.97	0.81	-0.16
G75	320022	100058	5.15	0.44	0.14	1.30	1.74	0.44
G75	320103	100504	2.06	0.18	0.13	0.60	0.97	0.37
G75	320234	100441	1.96	0.54	0.18	0.96	1.16	0.20
G75	320264	100492	3.09	0.41	0.27	1.09	1.34	0.25
G75	320314	100550	1.19	0.14	0.13	0.48	0.78	0.30

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MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G75	320320	100576	6.50	0.13	0.13	2.20	1.84	-0.36
G75	320331	100601	2.61	0.13	0.12	1.30	1.06	-0.24
G75	320332	101362	1.98	0.15	0.12	0.75	0.94	0.19
G75	320360	100867	3.42	0.58	0.29	1.20	1.50	0.30
G75	320366	100706	0.44	0.13	0.13	0.52	0.62	0.10
G75	420082	000082	2.39	0.29	0.19	1.17	1.11	-0.06
G75	420125	000123	4.90	0.19	0.08	1.23	1.54	0.31
G75	420217	000217	2.10	0.13	0.08	1.28	0.94	-0.34
G75	420262	000262	2.50	0.18	0.10	0.61	1.06	0.45
G75	420389	000488	4.69	0.55	0.11	1.90	1.70	-0.20
G75	420448	000569	3.06	0.32	0.18	2.27	1.26	-1.01
G75	420464	000612	3.09	0.60	0.30	1.00	1.45	0.45
G75	420501	000653	5.86	0.16	0.12	2.28	1.72	-0.56
G75	420502	000660	3.54	0.39	0.10	1.11	1.38	0.27
G75	420504	000662	4.03	0.49	0.18	2.01	1.55	-0.46
G75	420588	000849	4.58	0.47	0.13	1.48	1.64	0.16
G75	520026	100542	4.40	0.52	0.28	1.77	1.66	-0.11
G75	520052	100012	4.44	2.27	2.37	3.86	3.12	-0.74
G75	520184	100248	4.16	2.18	1.19	2.70	2.73	0.03
G75	520194	100473	4.98	3.08	2.17	3.01	3.61	0.60
G75	520195	100531	3.27	1.63	1.56	2.70	2.34	-0.36
G75	520278	100522	4.17	3.40	3.66	4.41	3.98	-0.43
G75	520281	100516	2.02	1.57	2.08	2.80	2.18	-0.62
G75	520283	100556	2.89	2.77	1.99	3.44	2.98	-0.46
G75	520287	100550	0.89	1.75	1.52	2.81	1.92	-0.89
G75	520297	100574	1.92	1.83	1.39	2.82	2.14	-0.68
G75	620155	000028	1.90	0.39	0.18	0.70	1.07	0.37
G75	620156	000252	2.54	0.39	0.21	1.19	1.20	0.01
G75	620157	000261	2.15	1.26	0.42	1.20	1.65	0.45
G75	620159	000271	2.48	0.21	0.20	0.56	1.09	0.53
G75	620160	000309	2.07	0.27	0.21	0.76	1.04	0.28
G75	620161	000162	5.52	0.51	0.26	1.47	1.88	0.41
G75	620162	000122	3.77	0.56	0.42	1.29	1.59	0.30
G75	620241	000277	4.22	0.23	0.25	0.97	1.46	0.49
G75	620252	000046	3.62	0.44	0.28	1.41	1.46	0.05
G75	620423	000303	0.93	0.71	0.19	0.93	1.05	0.12
G77	120240	001519	3.55	0.59	0.16	1.24	1.50	0.26
G77	120241	001518	4.94	0.36	0.03	1.25	1.63	0.38
G77	120316	001680	4.36	0.96	0.21	1.93	1.88	-0.05
G77	120317	001681	1.36	0.33	0.13	1.15	0.92	-0.23
G77	120403	001724	0.31	0.17	0.16	0.32	0.63	0.31
G77	220089	001203	2.79	0.22	0.12	1.38	1.14	-0.24
G77	220123	001302	6.27	0.60	0.14	2.21	2.05	-0.16
G77	220124	001303	3.99	0.81	0.14	1.16	1.70	0.54
G77	220125	001304	5.65	0.67	0.13	1.28	1.96	0.68
G77	220126	001305	4.00	0.44	0.13	1.24	1.50	0.26
G77	220129	001311	1.60	0.98	0.20	1.00	1.33	0.33
G77	220130	001312	6.12	0.96	0.15	1.77	2.22	0.45
G77	220132	001314	4.99	0.36	0.15	1.44	1.66	0.22
G77	320083	100215	4.67	1.35	0.13	1.32	2.13	0.81

525A

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G77	320128	100299	1.93	0.50	0.12	0.61	1.12	0.51
G77	320169	100298	6.00	1.48	0.14	1.98	2.47	0.49
G77	320206	100402	5.04	0.55	0.20	1.41	1.79	0.38
G77	320266	100724	6.75	1.09	0.34	1.88	2.46	0.58
G77	320296	101239	2.57	0.99	0.14	1.31	1.52	0.21
G77	320348	100603	4.62	0.81	0.20	1.23	1.85	0.62
G77	320408	101071	3.07	0.46	0.09	1.22	1.32	0.10
G77	420149	000149	6.88	0.63	0.07	2.01	2.17	0.16
G77	420157	000157	8.05	0.43	0.08	2.49	2.30	-0.19
G77	420402	000501	3.00	0.23	0.10	1.11	1.18	0.07
G77	420459	000607	5.03	0.55	0.10	1.52	1.76	0.24
G77	420465	000613	0.40	1.17	0.73	1.45	1.32	-0.13
G77	420490	000637	1.21	0.51	0.08	0.94	0.97	0.03
G77	420579	000838	2.96	0.58	0.07	1.11	1.36	0.25
G77	520008	100001	5.56	2.85	0.39	2.12	3.18	1.06
G77	520009	100002	1.27	1.99	0.48	4.70	1.88	-2.82
G77	520116	100046	3.54	2.42	0.42	3.46	2.55	-0.91
G77	520117	100052	5.15	2.34	0.90	4.63	2.95	-1.68
G77	520119	100054	6.01	2.75	0.66	4.07	3.28	-0.79
G77	520120	100051	4.44	2.53	2.25	5.07	3.23	-1.84
G77	520121	100053	5.49	2.46	2.75	5.70	3.52	-2.18
G77	620173	000125	1.46	1.12	0.18	0.83	1.37	0.54
G77	620174	000112	2.24	0.19	0.16	0.86	1.02	0.16
G77	620257	000008	3.05	0.50	0.15	0.70	1.35	0.65
G77	620262	000102	4.68	0.21	0.17	1.11	1.53	0.42
G77	620294	000088	5.97	0.93	0.16	1.88	2.17	0.29
G77	620296	000078	2.28	0.29	0.18	0.89	1.09	0.20
G77	620319	000138	3.68	0.60	0.15	1.06	1.53	0.47
G78	320502	104125	7.46	0.90	0.09	2.20	2.44	0.24
G78	520239	100316	6.88	3.42	1.56	4.08	4.03	-0.05
V82	120071	001273	2.57	0.18	0.59	1.12	1.19	0.07
V82	120083	001286	1.31	0.58	4.72	1.31	2.14	0.83
V82	120197	001420	1.57	0.16	1.05	1.15	1.09	-0.06
V82	220073	001138	1.15	0.35	0.31	0.96	0.93	-0.03
V82	220080	001191	0.34	0.13	0.11	0.89	0.60	-0.29
V82	220137	001323	0.61	0.16	0.34	1.00	0.72	-0.28
V82	320153	100388	0.85	0.35	0.45	0.79	0.90	0.11
V82	320217	100612	0.16	0.09	0.13	0.48	0.54	0.06
V82	320363	101068	0.42	0.16	2.81	0.60	1.28	0.68
V82	420200	000200	2.60	0.14	3.71	1.43	1.92	0.49
V82	420393	000492	7.73	1.31	4.66	2.85	3.81	0.96
V82	420419	000518	0.29	0.10	2.57	1.40	1.16	-0.24
V82	420577	000836	1.71	0.08	3.23	0.69	1.59	0.90
V82	520050	100013	1.10	0.11	0.55	1.62	0.84	-0.78
V82	520080	100197	3.67	0.14	2.45	2.41	1.83	-0.58
V82	520215	100483	1.69	0.11	3.19	3.14	1.59	-1.55
V82	620179	000096	3.34	1.31	0.75	1.58	1.99	0.41
V82	620180	000068	3.27	1.36	3.42	0.88	2.64	1.76
V82	620182	000109	0.35	0.14	0.50	0.92	0.70	-0.22
V83	120029	001199	1.91	0.17	0.46	0.98	1.02	0.04

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V83	120045	001234	4.46	0.08	0.40	1.20	1.47	0.27
V83	120056	001253	2.33	0.16	0.37	1.19	1.08	-0.11
V83	120057	001254	6.11	0.25	3.04	1.45	2.52	1.07
V83	120059	001258	2.63	0.16	0.98	1.11	1.28	0.17
V83	120061	001260	2.72	0.43	2.05	0.95	1.70	0.75
V83	120064	001264	0.21	0.16	0.65	0.92	0.72	-0.20
V83	120065	001265	1.30	0.16	0.82	0.85	0.98	0.13
V83	120066	001266	2.46	0.15	1.00	0.60	1.25	0.65
V83	120068	001268	3.12	0.16	0.67	1.12	1.31	0.19
V83	120069	001269	0.13	0.13	1.53	0.53	0.90	0.37
V83	120072	001274	3.95	0.17	0.45	1.57	1.43	-0.14
V83	120075	001278	4.09	0.12	0.49	1.56	1.44	-0.12
V83	120106	001316	3.06	0.41	1.41	1.35	1.61	0.26
V83	120116	001326	3.80	0.14	0.30	1.62	1.34	-0.28
V83	120135	001348	4.68	0.14	0.32	1.65	1.52	-0.13
V83	120209	001440	3.96	0.11	0.40	1.38	1.38	0.00
V83	220025	001043	1.07	0.14	2.10	1.10	1.23	0.13
V83	220026	001045	1.57	0.26	0.16	1.00	0.93	-0.07
V83	220047	001089	6.91	1.33	1.10	3.55	2.80	-0.75
V83	220053	001103	0.47	0.12	0.83	0.88	0.79	-0.09
V83	220092	001207	5.67	0.38	0.31	2.32	1.85	-0.47
V83	220173	001388	1.33	0.29	0.19	1.50	0.90	-0.60
V83	220183	001419	4.86	0.28	0.45	1.54	1.67	0.13
V83	220189	001443	3.28	0.17	0.70	1.17	1.35	0.18
V83	220190	001445	4.51	0.19	0.16	1.40	1.48	0.08
V83	220197	001466	1.81	0.17	0.40	1.44	0.98	-0.46
V83	220200	001491	2.73	0.20	0.49	1.16	1.21	0.05
V83	220205	001524	1.07	0.13	0.12	1.18	0.75	-0.43
V83	220206	001521	4.30	0.67	0.44	3.03	1.76	-1.27
V83	220295	000827	8.91	0.74	1.46	3.05	2.97	-0.08
V83	220314	001806	4.50	0.84	0.50	1.82	1.91	0.09
V83	220317	001877	3.51	0.13	0.38	1.35	1.30	-0.05
V83	220373	001911	3.95	0.31	0.47	1.71	1.51	-0.20
V83	320007	100032	2.93	0.08	0.23	1.17	1.12	-0.05
V83	320014	100049	1.38	0.10	0.30	0.83	0.84	0.01
V83	320017	100052	8.52	0.42	0.43	2.74	2.47	-0.27
V83	320034	100257	2.66	0.64	2.36	1.77	1.88	0.11
V83	320039	100198	4.74	1.63	1.00	1.93	2.50	0.57
V83	320045	100147	5.17	0.30	1.50	1.77	1.99	0.22
V83	320055	100199	0.51	0.79	1.97	0.80	1.43	0.63
V83	320091	100200	4.73	0.56	0.85	2.30	1.89	-0.41
V83	320095	100201	2.64	0.46	0.46	1.18	1.32	0.14
V83	320097	100148	3.38	0.16	0.59	1.13	1.34	0.21
V83	320101	100244	5.28	1.50	1.82	1.88	2.74	0.86
V83	320108	100245	4.32	0.14	1.44	1.26	1.72	0.46
V83	320130	100106	0.34	0.12	1.08	0.94	0.82	-0.12
V83	320131	100107	4.03	0.37	0.52	2.03	1.57	-0.46
V83	320132	100108	3.59	1.18	0.53	1.89	1.92	0.03
V83	320277	100464	8.11	0.11	1.19	2.17	2.40	0.23
V83	420034	000012	4.75	0.40	3.86	1.15	2.53	1.38

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V83	420064	000066	11.12	1.08	0.25	3.61	3.31	-0.30
V83	420103	000104	1.70	0.07	0.81	0.83	1.01	0.18
V83	420106	000107	1.58	0.07	3.78	0.67	1.69	1.02
V83	420152	000152	4.45	0.19	1.90	1.33	1.88	0.55
V83	420162	000162	5.59	0.19	0.12	2.16	1.69	-0.47
V83	420164	000164	1.05	0.08	0.89	0.91	0.90	-0.01
V83	420166	000166	3.36	0.07	0.66	1.05	1.30	0.25
V83	420172	000172	4.16	3.35	2.80	3.82	3.75	-0.07
V83	420180	000180	4.96	0.13	1.23	2.13	1.79	-0.34
V83	420184	000184	3.41	0.09	1.23	1.52	1.46	-0.06
V83	420193	000193	4.93	0.87	0.88	1.49	2.10	0.61
V83	420197	000197	2.12	0.08	0.79	1.07	1.09	0.02
V83	420199	000199	5.92	0.51	0.64	3.02	2.05	-0.97
V83	420203	000203	4.66	0.16	1.04	1.52	1.70	0.18
V83	420466	000614	2.44	0.30	4.14	1.17	2.07	0.90
V83	520011	100007	7.15	1.62	1.65	3.26	3.14	-0.12
V83	520040	100169	5.64	2.25	2.20	3.25	3.31	0.06
V83	520042	100189	4.22	1.09	1.66	2.65	2.27	-0.38
V83	520043	100170	3.89	1.06	4.90	2.78	2.96	0.18
V83	520045	100024	6.69	0.94	6.51	2.80	3.84	1.04
V83	520046	100426	8.75	2.16	2.58	4.26	3.97	-0.29
V83	520047	100063	7.09	1.62	1.45	3.48	3.08	-0.40
V83	520048	100147	4.42	1.45	1.16	2.67	2.38	-0.29
V83	520049	100205	3.36	0.23	3.02	2.07	1.95	-0.12
V83	520053	100023	6.12	0.84	2.21	2.63	2.64	0.01
V83	520062	100132	5.63	1.91	1.13	3.09	2.86	-0.23
V83	520079	100028	4.52	0.40	4.69	1.78	2.68	0.90
V83	520084	100279	5.50	0.58	1.34	2.46	2.17	-0.29
V83	520088	100039	3.24	0.27	5.77	1.70	2.61	0.91
V83	520191	100259	5.88	2.09	4.28	3.53	3.77	0.24
V83	520319	100617	9.09	1.35	6.21	3.57	4.47	0.90
V83	520330	100627	6.42	1.78	2.70	3.35	3.33	-0.02
V83	620011	000002	0.14	0.17	1.28	1.09	0.86	-0.23
V83	620015	000116	3.22	0.13	0.14	1.02	1.18	0.16
V83	620028	000021	3.40	0.35	1.68	1.13	1.71	0.58
V83	620031	000022	9.18	0.19	1.66	2.14	2.78	0.64
V83	620175	000110	5.45	0.37	0.23	1.50	1.78	0.28
V83	620177	000042	0.80	0.14	0.51	0.64	0.79	0.15
V83	620181	000313	5.26	0.16	0.73	1.97	1.75	-0.22
V83	620183	000029	1.01	0.16	0.45	0.79	0.83	0.04
V83	620185	000143	2.57	0.18	0.68	1.18	1.21	0.03
V83	620187	000159	2.58	0.75	0.18	1.12	1.40	0.28
V83	620189	000177	7.76	1.74	0.18	2.45	2.97	0.52
V83	620190	000265	3.00	0.17	0.29	1.19	1.20	0.01
V83	620193	000154	3.79	0.17	0.99	1.46	1.52	0.06
V83	620205	000158	3.99	0.15	0.14	1.48	1.35	-0.13
V83	620413	000320	0.40	0.77	0.15	0.68	0.97	0.29
V83	620422	000295	4.88	0.59	0.70	1.64	1.90	0.26
V83	620436	000337	0.16	0.16	2.74	0.97	1.21	0.24
V83	620445	000344	4.96	0.44	0.23	1.84	1.72	-0.12

CARBON MONOXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V84	320063	100165	4.10	2.75	4.96	2.05	3.93	1.88

TABLE F-4

Nitrogen Oxides

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	120092	001298	232.00	2679.00	2019.00	1623.00	1389.48	-233.52
A01	120100	001310	176.00	3329.00	3841.00	2198.00	1853.89	-344.11
A01	120222	001460	113.00	3411.00	3179.00	2062.00	1759.18	-302.82
A01	120243	001520	41.00	1963.00	4395.00	2081.00	1525.02	-555.98
A01	120254	001554	104.00	3138.00	2647.00	1895.00	1590.93	-304.07
A01	120256	001556	73.00	1667.00	2523.00	939.00	1147.24	208.24
A01	120265	001571	131.00	3050.00	1837.00	2035.00	1441.87	-593.13
A01	120273	001583	261.00	1988.00	1946.00	869.00	1188.76	319.76
A01	120280	001597	456.00	3147.00	2087.00	1914.00	1584.78	-329.22
A01	220041	001083	190.00	2212.00	2477.00	1813.00	1321.24	-491.76
A01	220081	001192	59.00	2046.00	2951.00	1420.00	1320.23	-99.77
A01	220116	001251	301.00	3623.00	2927.00	2570.00	1818.93	-751.07
A01	220215	001563	148.00	2474.00	3641.00	1833.00	1573.10	-259.90
A01	220233	001589	101.00	1902.00	2087.00	1577.00	1294.96	-282.04
A01	220234	001590	80.00	1017.00	1121.00	810.00	739.11	-70.89
A01	220268	001652	101.00	1149.00	1295.00	665.00	809.35	144.35
A01	220282	001745	121.00	1937.00	2872.00	1613.00	1290.99	-322.01
A01	220322	001809	81.00	1410.00	3252.00	1847.00	1193.67	-653.33
A01	220383	002121	95.00	2052.00	3653.00	1750.00	1443.27	-306.73
A01	320076	100219	152.00	3492.00	3324.00	1658.00	1820.93	162.93
A01	320114	100274	173.00	3031.00	2282.00	2110.00	1517.84	-592.16
A01	320145	100304	123.00	3807.00	2814.00	2251.00	1811.66	-439.34
A01	320166	100364	131.00	2311.00	3320.00	2324.00	1471.33	-852.67
A01	320252	100475	292.00	3692.00	3762.00	2613.00	1970.81	-642.19
A01	320297	100912	217.00	1254.00	1616.00	2243.00	917.60	-1325.40
A01	320309	101408	87.00	2556.00	4243.00	1914.00	1679.11	-234.89
A01	320382	100796	69.00	2376.00	4108.00	1907.00	1602.25	-304.75
A01	320490	102239	131.00	2337.00	2707.00	1709.00	1412.21	-296.79
A01	420059	000061	104.00	1990.00	3541.00	1401.00	1409.76	8.76
A01	420091	000098	333.00	3995.00	2761.00	2665.00	1937.15	-727.85
A01	420359	000424	263.00	2902.00	2461.00	1621.00	1530.95	-90.05
A01	420428	000527	195.00	3283.00	3424.00	2251.00	1778.13	-472.87
A01	420463	000611	88.00	3750.00	2883.00	2253.00	1799.49	-453.51
A01	420478	000639	53.00	3434.00	4129.00	1997.00	1901.53	-95.47
A01	420487	000635	64.00	2874.00	3172.00	1785.00	1591.43	-193.57
A01	420521	000694	211.00	3043.00	2230.00	1916.00	1521.66	-394.34
A01	420522	000695	275.00	2758.00	1660.00	1444.00	1364.00	-80.00
A01	520014	100563	180.00	2710.00	3786.00	1721.00	1670.67	-50.33
A01	520128	100511	119.00	1624.00	2019.00	786.00	1064.58	278.58
A01	520129	100465	161.00	2464.00	3612.00	1088.00	1568.61	480.61
A01	520139	100564	101.00	865.00	2312.00	821.00	892.65	71.65
A01	520150	100492	407.00	3050.00	3327.00	1977.00	1745.59	-231.41
A01	520185	100585	222.00	3514.00	3367.00	2084.00	1840.62	-243.38
A01	520308	100596	153.00	2314.00	2966.00	1641.00	1420.28	-220.72
A01	520309	100594	314.00	1890.00	2479.00	1806.00	1259.07	-546.93
A01	520323	100614	121.00	1306.00	2525.00	828.00	1056.45	228.45
A01	620033	000074	156.00	3010.00	2782.00	1811.00	1588.45	-222.55
A01	620034	000210	98.00	1457.00	3101.00	1489.00	1186.61	-302.39
A01	620215	000066	137.00	2701.00	2976.00	1372.00	1527.78	155.78
A01	620233	000100	89.00	2417.00	3170.00	1805.00	1467.48	-337.52

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A01	620240	000132	83.00	2000.00	3175.00	1484.00	1603.67	119.67
A01	620244	000137	62.00	1326.00	2414.00	726.00	1030.59	304.59
A01	620249	000056	95.00	2322.00	3471.00	1715.00	1490.43	-224.57
A01	620261	000193	118.00	3353.00	2489.00	1883.00	1629.62	-253.38
A01	620264	000134	165.00	3785.00	3057.00	1856.00	1854.26	-1.74
A01	620288	000257	40.00	726.00	3430.00	1106.00	1019.15	-86.85
A01	620291	000099	139.00	2262.00	3051.00	1681.00	1416.00	-265.00
A01	620292	000155	143.00	2765.00	2543.00	1890.00	1477.59	-412.41
A01	620368	000188	144.00	619.00	1411.00	983.00	687.89	-295.11
A02	120198	001421	149.00	3187.00	3534.00	1910.00	1758.01	-151.99
A02	120401	001715	82.00	1302.00	1311.00	530.00	850.86	320.86
A02	220036	001069	270.00	1643.00	2621.00	1415.00	1201.81	-213.19
A02	320100	100275	216.00	1015.00	2164.00	1129.00	937.91	-191.09
A02	320310	100548	114.00	1717.00	2391.00	1240.00	1149.64	-90.36
A02	420173	000173	86.00	2162.00	785.00	693.00	1010.64	317.64
A02	420510	000668	225.00	2103.00	1624.00	1094.00	1161.16	67.16
A02	520315	100610	131.00	2845.00	3871.00	1033.00	1711.25	678.25
A02	620035	000204	204.00	802.00	1257.00	870.00	728.81	-141.19
A02	620229	000174	106.00	1902.00	3045.00	1547.00	1305.46	-241.54
A02	620350	000136	111.00	1554.00	2325.00	927.00	1092.16	165.16
A02	620366	000172	166.00	1481.00	1800.00	1115.00	999.70	-115.30
A03	120242	001519	116.00	2567.00	3477.00	1262.00	1565.63	303.63
A03	120274	001584	133.00	2895.00	3860.00	1856.00	1724.10	-131.90
A03	220327	000822	259.00	1970.00	2537.00	1153.00	1278.34	125.34
A03	220370	001884	78.00	1051.00	1771.00	985.00	852.91	-132.09
A03	320312	101435	216.00	1758.00	3163.00	2276.00	1167.54	-1108.46
A03	320392	101287	119.00	826.00	3562.00	1509.00	1086.76	-422.24
A03	420264	000264	111.00	385.00	2894.00	1006.00	852.73	-153.27
A03	420386	000483	115.00	2078.00	2625.00	1178.00	1269.77	91.77
A03	420425	000524	219.00	2910.00	3367.00	1566.00	1668.88	102.88
A03	520067	100057	185.00	2565.00	1018.00	1118.00	1185.18	67.18
A03	520312	100605	273.00	2763.00	822.00	1242.00	1230.06	-11.94
A05	120173	001397	128.00	1196.00	2519.00	1139.00	1025.95	-113.05
A05	120245	001522	409.00	2499.00	3473.00	1641.00	1613.52	-27.48
A05	120246	001524	220.00	2133.00	3495.00	1482.00	1469.69	-12.31
A05	220131	001313	165.00	801.00	1606.00	803.00	775.68	-27.32
A05	220307	001804	173.00	1484.00	2436.00	1231.00	1092.99	-138.01
A05	220308	001859	122.00	1429.00	2041.00	1051.00	1013.59	-37.41
A05	220384	002124	50.00	2359.00	3551.00	2018.00	1503.37	-514.63
A05	320147	100376	209.00	1678.00	3039.00	1055.00	1264.89	209.89
A05	320158	101358	93.00	995.00	1887.00	959.00	859.19	-99.81
A05	320369	100646	215.00	1681.00	2715.00	1759.00	1214.97	-544.03
A05	420410	000509	69.00	2380.00	3552.00	1310.00	1513.87	203.87
A05	420413	000512	218.00	2837.00	3573.00	1283.00	1681.14	398.14
A05	420460	000608	155.00	1330.00	2059.00	887.00	996.09	109.09
A05	420462	000610	145.00	2396.00	3239.00	1552.00	1485.60	-66.40
A05	520015	100017	98.00	889.00	1772.00	872.00	811.82	-60.18
A05	520173	100432	224.00	1662.00	2704.00	1128.00	1209.90	81.90
A05	520211	100521	123.00	1067.00	2353.00	820.00	961.54	141.54
A05	520310	100595	95.00	1181.00	2983.00	1029.00	1088.76	59.76

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
A05	620023	000003	168.00	1250.00	1716.00	1019.00	921.23	-97.77
A05	620204	000059	137.00	1199.00	2188.00	638.00	975.60	337.60
A05	620220	000263	152.00	1649.00	3078.00	1225.00	1249.77	24.77
A05	620223	000127	104.00	859.00	1768.00	857.00	804.07	-52.93
A05	620349	000274	155.00	606.00	1520.00	756.00	704.30	-51.70
A05	620370	000206	238.00	1149.00	1972.00	1242.00	950.04	-291.96
A07	120008	001152	167.00	2523.00	3593.00	1792.00	1583.64	-208.36
A07	120044	001231	229.00	2562.00	3437.00	1328.00	1583.92	255.92
A07	120239	001499	171.00	1992.00	3130.00	1103.00	1359.67	256.67
A07	220286	001807	225.00	1920.00	3198.00	1897.00	1362.72	-534.28
A07	220376	001915	55.00	1227.00	2119.00	658.00	953.45	295.45
A07	320491	102387	137.00	2293.00	3263.00	1759.00	1458.45	199.45
A07	420248	000248	250.00	3195.00	3673.00	1637.00	1806.02	169.02
A07	520314	100603	127.00	2086.00	2875.00	1170.00	1335.06	165.06
A07	620362	000194	123.00	2004.00	3433.00	1901.00	1401.02	-99.98
A07	620371	000184	108.00	2859.00	4151.00	2039.00	1754.97	-284.03
A08	520304	100591	68.00	2290.00	2877.00	1691.00	1379.49	-311.51
A09	320350	100623	101.00	1833.00	3162.00	1182.00	1303.60	121.60
A09	420394	000493	81.00	2337.00	3491.00	1254.00	1494.65	240.65
A09	520068	100514	231.00	2769.00	2868.00	1682.00	1554.62	-127.38
A09	620036	000197	104.00	1708.00	3079.00	1575.00	1255.53	-319.47
A09	620192	000193	159.00	1688.00	3097.00	1748.00	1265.49	-482.51
A09	620373	000280	267.00	3795.00	4402.00	2324.00	2097.22	-226.78
A10	220298	001789	64.00	1328.00	3394.00	1597.00	1189.38	-407.62
A10	320362	100642	127.00	2072.00	3923.00	1458.00	1499.80	41.80
A10	520243	100496	97.00	2414.00	2383.00	1057.00	1341.79	284.79
A10	620376	000237	133.00	2299.00	3246.00	1192.00	1470.37	278.37
A10	620417	000202	129.00	2036.00	3572.00	1433.00	1434.41	1.41
A11	120304	001663	58.00	2246.00	3584.00	1402.00	1478.53	76.53
C10	120156	001375	116.00	2850.00	3552.00	1812.00	1657.84	-154.16
C10	120258	001560	247.00	3900.00	4013.00	2470.00	2059.70	-410.30
C10	120427	001757	126.00	2450.00	3005.00	1523.00	1458.83	-64.17
C10	120429	001794	113.00	1119.00	1961.00	1717.00	910.85	-806.15
C10	220275	001729	90.00	1518.00	2801.00	1590.00	1153.74	-436.26
C10	220307	001798	273.00	2579.00	737.00	1679.00	1164.27	-514.73
C10	220328	000818	101.00	1471.00	2440.00	1057.00	1084.86	27.86
C10	220334	002085	134.00	1854.00	3823.00	1608.00	1423.59	-184.41
C10	220357	001904	95.00	1369.00	2407.00	1014.00	1049.27	35.27
C10	320208	100396	128.00	4221.00	4244.00	2751.00	2160.25	-590.75
C10	320358	100647	132.00	2559.00	3614.00	2052.00	1589.12	-462.88
C10	420021	000029	155.00	3686.00	3362.00	2243.00	1873.02	-369.98
C10	420498	000656	274.00	3447.00	2406.00	2264.00	1667.40	-596.60
C10	420506	000664	66.00	3913.00	2501.00	2335.00	1778.10	-556.90
C10	420550	000756	126.00	3591.00	3352.00	2467.00	1934.38	-532.62
C10	520151	100119	357.00	2865.00	598.00	1186.00	1242.32	56.32
C10	520264	100577	509.00	2897.00	784.00	1345.00	1316.49	-28.51
C10	520302	100584	151.00	1429.00	917.00	954.00	839.36	-114.64
C10	520317	100612	151.00	1663.00	1719.00	957.00	1034.73	77.73
C10	620043	000262	129.00	2210.00	3779.00	2089.00	1516.16	-572.84
C10	620250	000035	163.00	3233.00	4141.00	2369.00	1871.99	-497.01

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C10	620286	000201	157.00	3032.00	2687.00	2247.00	1579.62	-667.38
C10	620431	000333	101.00	1633.00	3366.00	1463.00	1279.80	-183.20
C11	120035	001212	111.00	2753.00	3376.00	1731.00	1600.88	-130.12
C11	120067	001267	301.00	3164.00	4330.00	2664.00	1924.47	-739.53
C11	120070	001270	51.00	3179.00	3741.00	2517.00	1798.59	-718.41
C11	120081	001284	57.00	2942.00	3999.00	1788.00	1742.20	-45.80
C11	120082	001285	115.00	3282.00	4169.00	2231.00	1879.27	-351.73
C11	120088	001294	197.00	3555.00	4382.00	2451.00	2009.84	-441.16
C11	120097	001307	257.00	2971.00	3172.00	2160.00	1663.56	-496.44
C11	120117	001327	204.00	3531.00	3839.00	2264.00	1917.25	-346.75
C11	120124	001335	230.00	3780.00	4328.00	2828.00	2072.49	-755.51
C11	120134	001347	108.00	3321.00	3500.00	2360.00	1781.00	-579.00
C11	120136	001349	132.00	4211.00	4550.00	2536.00	2207.61	-328.39
C11	120140	001353	54.00	1223.00	3744.00	1387.00	1213.67	-173.33
C11	120157	001376	177.00	3804.00	4546.00	3121.00	2108.56	-1012.44
C11	120206	001437	208.00	3993.00	4304.00	2929.00	2123.86	-801.14
C11	120237	001482	156.00	3029.00	3309.00	2109.00	1678.67	-430.33
C11	220039	001075	270.00	1241.00	4282.00	2508.00	1355.36	-1152.64
C11	220111	001239	229.00	4277.00	3298.00	2496.00	2047.19	-448.81
C11	220150	001348	207.00	3413.00	4255.00	2634.00	1751.49	-882.51
C11	220164	001367	88.00	3687.00	4292.00	2565.00	2007.51	-557.49
C11	220194	001458	73.00	2037.00	3212.00	2081.00	1362.94	-718.06
C11	220217	001569	109.00	2063.00	3544.00	2292.00	1432.07	-859.93
C11	220223	001581	92.00	1976.00	1343.00	1450.00	1145.77	-304.23
C11	220225	001578	26.00	1212.00	2733.00	1355.00	1041.33	-313.67
C11	220229	001584	121.00	2106.00	3373.00	2157.00	1419.50	-737.50
C11	220230	001585	67.00	2666.00	3107.00	2174.00	1522.76	-651.24
C11	220236	001592	88.00	3307.00	4289.00	2591.00	1899.42	-691.58
C11	220252	001609	109.00	1753.00	2921.00	2026.00	1244.00	-782.00
C11	220262	001631	190.00	2282.00	3370.00	2071.00	1484.82	-586.18
C11	220267	001646	90.00	1615.00	2771.00	1725.00	1176.38	-48.62
C11	220281	001748	74.00	1742.00	2072.00	1239.00	1240.99	1.99
C11	220382	002069	112.00	2757.00	3510.00	2358.00	1623.82	-734.18
C11	320003	100019	203.00	3793.00	4259.00	2880.00	2058.82	-821.18
C11	320006	100024	99.00	1471.00	922.00	901.00	840.03	-60.97
C11	320012	100043	94.00	3479.00	4245.00	2457.00	1942.43	-514.57
C11	320053	100151	132.00	3969.00	4264.00	2973.00	2073.04	-899.96
C11	320060	100125	110.00	1673.00	3960.00	1543.00	1388.83	-154.17
C11	320112	100246	219.00	3346.00	4260.00	2739.00	1936.10	-802.90
C11	320243	100418	680.00	1946.00	4260.00	2912.00	1646.32	-1265.68
C11	320247	100429	149.00	1927.00	4271.00	2215.00	1511.80	-703.20
C11	320270	100486	153.00	3569.00	4245.00	2233.00	1921.57	-311.43
C11	320333	100582	137.00	3523.00	4166.00	2569.00	1952.12	-616.88
C11	320334	100583	106.00	3272.00	4200.00	2708.00	1879.34	-828.66
C11	320434	101121	327.00	3154.00	4235.00	3071.00	1902.70	-1168.30
C11	320439	101142	139.00	2966.00	4038.00	1947.00	1774.25	-172.75
C11	420123	000124	327.00	3638.00	3893.00	2456.00	1984.70	-471.30
C11	420185	000185	71.00	3556.00	3086.00	1560.00	1772.34	212.34
C11	420207	000207	81.00	1155.00	1982.00	952.00	917.02	-34.98
C11	420325	000349	132.00	2870.00	4146.00	2581.00	1762.83	-818.17

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C11	420383	000479	102.00	3656.00	3857.00	2315.00	1931.94	-383.06
C11	420388	000487	62.00	3344.00	3082.00	1697.00	1709.58	12.58
C11	420391	000490	83.00	2425.00	3670.00	1883.00	1548.85	-334.15
C11	420403	000502	126.00	3469.00	3107.00	1946.00	1763.81	-182.19
C11	420420	000519	39.00	2531.00	3260.00	1507.00	1502.69	-4.31
C11	420430	000529	56.00	4114.00	4163.00	1869.00	2101.22	232.22
C11	420443	000564	79.00	2456.00	3308.00	1779.00	1498.43	-280.57
C11	420456	000604	31.00	2784.00	3864.00	1962.00	1669.71	-292.29
C11	420470	000619	105.00	3411.00	3807.00	2256.00	1855.21	-400.79
C11	420481	000629	83.00	3443.00	4004.00	1829.00	1890.89	61.89
C11	520020	100544	143.00	1516.00	394.00	1536.00	777.96	-758.04
C11	520022	100616	94.00	1900.00	435.00	1168.00	881.96	-286.04
C11	520076	100291	119.00	2676.00	2930.00	1336.00	1508.90	172.90
C11	520110	100508	96.00	1818.00	2247.00	1361.00	1150.90	-210.10
C11	520206	100510	172.00	2790.00	966.00	2109.00	1237.51	-871.49
C11	520213	100545	128.00	1541.00	446.00	1163.00	789.93	-373.07
C11	520216	100525	169.00	3180.00	571.00	2077.00	1283.67	-793.33
C11	520245	100495	81.00	2277.00	2410.00	804.00	1305.49	701.49
C11	520259	100469	146.00	3054.00	756.00	1655.00	1272.45	-382.55
C11	520262	100536	148.00	2866.00	733.00	1579.00	1216.54	-362.46
C11	520276	100503	113.00	3157.00	2708.00	1878.00	1608.22	-269.78
C11	520300	100587	94.00	2177.00	2255.00	1440.00	1253.38	-186.62
C11	520301	100590	99.00	2520.00	1038.00	1643.00	1155.76	-487.24
C11	620022	000010	149.00	3253.00	3033.00	1913.00	1840.93	-72.07
C11	620026	000005	264.00	2716.00	3439.00	2151.00	1636.52	-514.48
C11	620029	000003	242.00	3432.00	3736.00	2409.00	1881.42	-527.58
C11	620039	000104	354.00	986.00	1140.00	1107.00	796.78	-310.22
C11	620040	000098	143.00	4576.00	4919.00	2808.00	2372.91	-435.09
C11	620044	000149	149.00	3215.00	3433.00	1898.00	1749.68	-148.32
C11	620045	000229	90.00	3358.00	4160.00	2755.00	1893.55	-861.45
C11	620046	000196	132.00	2004.00	4051.00	2334.00	1502.30	-831.70
C11	620047	000200	211.00	1654.00	4062.00	2007.00	1423.24	-583.76
C11	620049	000216	148.00	2240.00	2837.00	2155.00	1377.41	-777.59
C11	620050	000244	528.00	1979.00	3901.00	2476.00	1562.71	-913.29
C11	620051	000231	40.00	2903.00	3299.00	1894.00	1614.54	-279.46
C11	620053	000133	75.00	1795.00	2768.00	1163.00	1223.39	60.39
C11	620284	000079	104.00	1537.00	3064.00	1301.00	1204.69	-96.31
C11	620285	000255	103.00	2365.00	3563.00	1752.00	1513.26	-238.74
C11	620287	000233	125.00	1867.00	2550.00	1286.00	1221.55	-64.45
C11	620312	000228	93.00	2307.00	3899.00	1997.00	1554.61	-442.39
C11	620435	000348	180.00	2931.00	3930.00	2208.00	1756.44	-451.56
C11	620439	000343	140.00	2975.00	3639.00	2109.00	1712.80	-396.20
C11	620441	000342	53.00	3216.00	4281.00	2354.00	1864.26	-489.74
C11	620444	000341	103.00	1841.00	3274.00	1206.00	1324.35	118.35
C12	120006	001144	182.00	3014.00	3046.00	2059.00	1638.10	-420.90
C12	120012	001161	147.00	2653.00	2880.00	1791.00	1501.05	-289.95
C12	120013	001165	187.00	2989.00	2179.00	1945.00	1492.61	-452.39
C12	120014	001162	117.00	3556.00	2787.00	2111.00	1734.85	-376.15
C12	120015	001168	234.00	2781.00	2380.00	1898.00	1476.94	-421.06
C12	120104	001314	222.00	3792.00	3440.00	1977.00	1931.09	-45.91

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	120110	001320	207.00	2256.00	3257.00	1738.00	1463.20	-274.80
C12	120111	001321	82.00	3486.00	2554.00	1688.00	1669.42	-18.58
C12	120112	001322	283.00	2835.00	3088.00	1943.00	1617.54	-325.46
C12	120115	001325	151.00	2282.00	1955.00	1313.00	1248.01	-64.99
C12	120128	001339	78.00	2774.00	3106.00	1984.00	1555.73	-428.27
C12	120158	001377	183.00	2739.00	1714.00	1707.00	1346.03	-360.97
C12	120179	001403	120.00	3198.00	2939.00	1652.00	1658.63	6.63
C12	120200	001423	136.00	2924.00	2456.00	1725.00	1506.99	-218.01
C12	120238	001492	147.00	3113.00	2437.00	1555.00	1560.00	5.00
C12	120286	001624	164.00	2654.00	2466.00	1585.00	1438.62	-146.38
C12	120301	001660	125.00	2856.00	3276.00	1817.00	1617.19	-199.81
C12	120310	001673	72.00	2214.00	2241.00	1533.00	1256.51	-276.49
C12	120320	001684	111.00	2529.00	3136.00	1820.00	1531.01	-288.99
C12	120328	001692	109.00	2072.00	2878.00	1722.00	1327.41	-394.59
C12	120329	001693	134.00	2115.00	2462.00	1579.00	1278.40	-300.60
C12	220009	000933	103.00	2881.00	3385.00	1981.00	1636.73	-344.27
C12	220011	000935	50.00	2239.00	3720.00	1516.00	1496.59	-19.41
C12	220024	001022	134.00	1452.00	3458.00	1724.00	1250.99	-473.01
C12	220027	001055	90.00	2476.00	3528.00	1988.00	1542.05	-445.95
C12	220040	001082	102.00	1395.00	3243.00	1673.00	1192.84	-480.16
C12	220093	001208	108.00	1936.00	3420.00	947.00	1375.92	428.92
C12	220101	001216	119.00	2541.00	2927.00	1775.00	1470.42	-304.58
C12	220102	001217	155.00	2520.00	3707.00	2141.00	1598.37	-542.63
C12	220109	001233	145.00	3453.00	3050.00	2106.00	1754.50	-351.50
C12	220151	001349	337.00	3084.00	4285.00	2813.00	1893.24	-919.76
C12	220154	001353	73.00	1659.00	2526.00	1389.00	1145.46	-243.54
C12	220162	001363	83.00	1747.00	2622.00	1251.00	1188.15	-62.85
C12	220170	001385	90.00	2683.00	3330.00	2299.00	1665.38	-633.62
C12	220176	001399	99.00	1426.00	2348.00	1190.00	1056.84	-133.16
C12	220185	001430	108.00	1713.00	3149.00	1489.00	1269.14	-219.86
C12	220201	001495	78.00	1273.00	2671.00	1256.00	1060.65	-195.35
C12	220202	001504	89.00	991.00	2352.00	1434.00	931.99	-502.01
C12	220203	001511	102.00	1251.00	2481.00	1356.00	1029.39	-326.61
C12	220216	001564	135.00	1657.00	2943.00	1522.00	1226.37	-295.63
C12	220222	001575	101.00	2305.00	2252.00	1428.00	1290.76	-137.24
C12	320092	100167	216.00	3038.00	3384.00	2175.00	1803.76	-371.24
C12	320121	100801	171.00	2219.00	3412.00	2573.00	1469.34	-1103.66
C12	320135	100276	165.00	2605.00	2408.00	1879.00	1415.64	-463.36
C12	320136	100285	98.00	1884.00	3015.00	2170.00	1293.68	-876.32
C12	320137	100303	164.00	1878.00	2987.00	1909.00	1302.75	-606.25
C12	320138	100319	193.00	1578.00	2884.00	1961.00	1207.92	-753.08
C12	320139	100338	151.00	817.00	1732.00	946.00	797.26	-148.74
C12	320140	100345	122.00	2600.00	3542.00	2248.00	1586.83	-661.17
C12	320141	100363	191.00	2406.00	3633.00	2012.00	1562.50	-449.50
C12	320142	100380	163.00	2582.00	3885.00	2000.00	1646.43	-353.57
C12	320211	101365	125.00	1778.00	2373.00	1537.00	1166.56	-370.44
C12	320246	100414	187.00	2885.00	2731.00	1835.00	1552.02	-282.98
C12	320261	100769	183.00	2996.00	3630.00	2099.00	1727.24	-371.76
C12	320285	101265	112.00	2728.00	2917.00	1764.00	1520.15	-243.85
C12	320340	101238	138.00	3445.00	3217.00	1723.00	1777.49	54.49

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	320395	100795	96.00	2582.00	3905.00	2165.00	1634.15	-530.85
C12	320419	101364	149.00	2261.00	3569.00	1745.00	1501.42	-243.58
C12	320485	101724	67.00	2023.00	2687.00	1284.00	1273.07	-10.93
C12	320497	105119	123.00	209.00	1954.00	1043.00	654.34	-388.66
C12	320503	104127	94.00	1094.00	2507.00	1106.00	987.27	-118.73
C12	320504	104129	202.00	3373.00	4275.00	2248.00	1942.23	-305.77
C12	420018	000028	158.00	2479.00	2061.00	1197.00	1322.48	125.48
C12	420019	000023	108.00	2627.00	2216.00	1335.00	1377.77	42.77
C12	420022	000020	79.00	2835.00	2423.00	1357.00	1463.29	106.29
C12	420025	000035	102.00	2841.00	2162.00	1277.00	1428.29	151.29
C12	420053	000054	58.00	2633.00	2161.00	976.00	1359.05	383.05
C12	420105	000106	111.00	2649.00	2913.00	1694.00	1496.90	-197.10
C12	420119	000120	92.00	2028.00	1617.00	1307.00	1108.02	-198.98
C12	420126	000126	133.00	2803.00	2121.00	1888.00	1419.80	-468.20
C12	420158	000158	151.00	2961.00	2274.00	1399.00	1491.64	92.64
C12	420259	000259	87.00	2131.00	1614.00	892.00	1135.55	243.55
C12	420385	000482	68.00	2640.00	2301.00	1104.00	1482.47	378.47
C12	420409	000508	65.00	3131.00	1932.00	1152.00	1464.83	312.83
C12	420424	000523	76.00	3441.00	2776.00	1815.00	1691.02	-123.98
C12	420429	000528	181.00	3716.00	3040.00	2098.00	1835.69	-262.31
C12	420439	000560	128.00	3469.00	2449.00	1768.00	1658.34	-109.66
C12	420441	000562	69.00	2874.00	2705.00	1344.00	1517.41	173.41
C12	420471	000620	61.00	2753.00	3019.00	1745.00	1531.84	-213.16
C12	420477	000625	86.00	2713.00	2871.00	1772.00	1502.48	-269.52
C12	420479	000627	81.00	3208.00	2736.00	1801.00	1619.76	-181.24
C12	420484	000632	176.00	1511.00	1832.00	750.00	1015.66	265.66
C12	420485	000633	96.00	2606.00	1846.00	1361.00	1309.49	-51.51
C12	420507	000665	54.00	2140.00	1699.00	872.00	1144.14	272.14
C12	520016	100130	104.00	2271.00	1498.00	878.00	1160.45	282.45
C12	520017	100534	142.00	2022.00	1336.00	887.00	1072.65	185.65
C12	520066	100044	203.00	2163.00	1362.00	1110.00	1130.88	20.88
C12	520082	100535	91.00	2201.00	1937.00	1103.00	1208.29	105.29
C12	520098	100547	84.00	1398.00	1191.00	597.00	859.19	262.19
C12	520100	100429	68.00	1382.00	1696.00	835.00	932.25	97.25
C12	520104	100220	187.00	3011.00	1887.00	2341.00	1451.83	-889.17
C12	520114	100468	80.00	984.00	1265.00	826.00	752.94	-73.06
C12	520118	100049	165.00	3004.00	1951.00	1610.00	1455.06	-154.94
C12	520126	100065	139.00	1622.00	1725.00	1028.00	1021.31	-6.69
C12	520140	100528	123.00	2145.00	1681.00	1035.00	1190.82	155.82
C12	520157	100478	115.00	1749.00	1302.00	756.00	983.63	227.63
C12	520161	100540	135.00	2332.00	2221.00	1254.00	1301.29	47.29
C12	520204	100438	123.00	2785.00	1758.00	1458.00	1352.26	-105.74
C12	520248	100470	225.00	1874.00	1183.00	965.00	1025.32	60.32
C12	520252	100505	85.00	1419.00	821.00	780.00	805.81	25.81
C12	520258	100386	116.00	1620.00	1217.00	988.00	933.65	-54.35
C12	520267	100527	187.00	2841.00	1952.00	1311.00	1414.15	103.15
C12	520272	100551	111.00	396.00	220.00	251.00	425.38	174.38
C12	520360	100696	93.00	1972.00	1087.00	737.00	1007.07	270.07
C12	620020	000024	120.00	3380.00	3152.00	2482.00	1744.46	-737.54
C12	620030	000007	266.00	1581.00	3619.00	1262.00	1343.98	81.98

520A

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C12	620037	000084	76.00	1648.00	3064.00	1330.00	1229.65	-100.35
C12	620038	000082	143.00	2327.00	1755.00	1433.00	1226.71	-206.29
C12	620042	000063	125.00	2306.00	1729.00	1278.00	1212.41	-65.59
C12	620054	000215	103.00	1470.00	1644.00	1077.00	956.90	-120.10
C12	620055	000214	94.00	1883.00	2058.00	1355.00	1138.41	-216.59
C12	620056	000212	107.00	1428.00	2375.00	1040.00	1063.61	23.61
C12	620058	000297	85.00	1702.00	1275.00	871.00	959.03	88.03
C12	620059	000318	177.00	1868.00	2895.00	1433.00	1288.11	-144.89
C12	620060	000242	134.00	1526.00	1489.00	867.00	954.98	87.98
C12	620061	000239	146.00	2096.00	1242.00	1494.00	1079.40	-414.60
C12	620196	000213	98.00	1647.00	2472.00	1335.00	1139.16	-195.84
C12	620202	000227	141.00	2350.00	1823.00	1381.00	1243.70	-137.30
C12	620222	000235	146.00	1339.00	1561.00	1210.00	916.39	-293.61
C12	620259	000101	110.00	2426.00	3480.00	1718.00	1524.79	-193.21
C12	620320	000315	95.00	2534.00	3169.00	1809.00	1501.84	-307.16
C12	620380	000327	98.00	2092.00	1643.00	971.00	1131.72	160.72
C12	620425	000314	135.00	1980.00	1954.00	1350.00	1158.63	-191.37
C12	620426	000321	95.00	2178.00	3513.00	1647.00	1456.41	-190.59
C13	120005	001140	118.00	2163.00	1753.00	1457.00	1174.16	-282.84
C13	120007	001151	112.00	2844.00	3609.00	2164.00	1664.39	-499.61
C13	120011	001160	110.00	2606.00	3576.00	1815.00	1591.22	-223.78
C13	120170	001390	84.00	3047.00	3281.00	1314.00	1662.60	348.60
C13	120176	001400	113.00	1992.00	2732.00	1475.00	1282.18	-192.82
C13	120180	001404	67.00	779.00	1590.00	657.00	744.20	87.20
C13	120216	001454	119.00	3508.00	3685.00	2501.00	1866.28	-634.72
C13	120247	001532	288.00	1902.00	1594.00	1173.00	1113.99	-59.01
C13	120248	001542	88.00	2209.00	3371.00	1637.00	1440.71	-196.29
C13	120253	001553	95.00	2045.00	3002.00	1317.00	1336.49	19.49
C13	120293	001640	104.00	1823.00	2997.00	1551.00	1274.90	-276.10
C13	120315	001679	70.00	2995.00	2541.00	1651.00	1525.51	-125.49
C13	220007	000928	47.00	1219.00	2821.00	973.00	1062.34	89.34
C13	220012	000936	119.00	2761.00	3502.00	1968.00	1625.28	-342.72
C13	220013	000937	82.00	2375.00	2941.00	1754.00	1417.11	-336.89
C13	220016	000940	44.00	2316.00	3789.00	1840.00	1528.12	-311.88
C13	220017	000941	54.00	1488.00	1557.00	928.00	936.65	8.65
C13	220098	001213	79.00	3376.00	2465.00	1858.00	1623.25	-234.75
C13	220113	001243	94.00	2797.00	2532.00	1315.00	1473.54	158.54
C13	220156	001357	77.00	1058.00	2555.00	1275.00	980.87	-294.13
C13	220186	001431	83.00	2475.00	2929.00	1651.00	1443.72	-207.28
C13	220213	001560	124.00	1157.00	2510.00	1261.00	1012.53	-248.47
C13	320122	100243	111.00	1635.00	2815.00	1500.00	1193.98	-306.02
C13	320148	100262	91.00	2435.00	3739.00	1921.00	1564.64	-356.36
C13	320227	100401	200.00	1734.00	3365.00	1666.00	1331.15	-334.85
C13	320242	100417	95.00	1608.00	2566.00	1147.00	1142.55	-4.45
C13	320292	101338	86.00	1838.00	3653.00	1586.00	1380.58	-205.42
C13	320381	100823	292.00	1479.00	1934.00	1578.00	1049.86	-528.14
C13	320385	100915	137.00	1729.00	3167.00	1384.00	1283.28	-100.72
C13	320399	101363	105.00	3106.00	3579.00	1915.00	1732.14	-182.86
C13	320404	101345	104.00	1379.00	3346.00	1610.00	1205.35	-404.65
C13	320407	101464	136.00	3005.00	4008.00	2359.00	1779.77	-579.23

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYNODE VALUE IDLE	KEYNODE VALUE LOW	KEYNODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C13	420069	000069	60.00	2158.00	3149.00	1303.00	1384.05	81.05
C13	420165	000165	52.00	2719.00	3004.00	1200.00	1517.72	317.72
C13	420230	000230	87.00	2611.00	2624.00	958.00	1434.06	476.06
C13	420278	000283	120.00	2257.00	3967.00	1366.00	1557.65	191.65
C13	420280	000287	93.00	2714.00	3616.00	1183.00	1624.31	441.31
C13	420306	000325	113.00	2573.00	3470.00	1463.00	1565.51	102.51
C13	420339	000385	122.00	2154.00	1988.00	1213.00	1210.37	-2.63
C13	420395	000494	67.00	2613.00	3760.00	1239.00	1612.87	373.87
C13	420399	000498	69.00	2345.00	3192.00	1103.00	1446.01	343.01
C13	420404	000503	47.00	3432.00	3658.00	1131.00	1823.75	692.75
C13	420433	000532	248.00	1830.00	2985.00	1409.00	1308.27	-100.73
C13	420451	000574	52.00	2277.00	3463.00	1539.00	1466.44	-72.56
C13	520004	100131	129.00	2708.00	2489.00	1536.00	1449.52	-86.48
C13	520091	100025	143.00	1755.00	767.00	879.00	905.68	26.68
C13	520132	100161	124.00	2393.00	2120.00	1225.00	1293.76	74.76
C13	520181	100292	155.00	2401.00	3039.00	1716.00	1457.14	-258.86
C13	520190	100257	98.00	1601.00	2351.00	1107.00	1106.65	-0.35
C13	520218	100471	108.00	2765.00	1914.00	1359.00	1368.23	9.23
C13	520250	100419	94.00	1679.00	1827.00	1149.00	1043.46	-105.54
C13	520255	100500	222.00	2503.00	2288.00	1358.00	1380.63	22.63
C13	520285	100546	103.00	2677.00	2414.00	1788.00	1422.65	134.65
C13	520307	100597	116.00	909.00	182.00	364.00	565.69	201.69
C13	620007	000023	88.00	1509.00	3625.00	1504.00	1283.37	-220.63
C13	620019	000004	105.00	1627.00	3045.00	1473.00	1227.35	-245.65
C13	620041	000089	106.00	1236.00	1998.00	1132.00	948.32	-183.68
C13	620063	000217	89.00	1793.00	2046.00	1616.00	1109.84	-506.16
C13	620065	000256	78.00	923.00	2466.00	1039.00	928.54	-110.46
C13	620066	000189	80.00	1708.00	2533.00	1402.00	1162.08	-239.92
C13	620067	000160	68.00	2510.00	3073.00	1693.00	1473.35	-219.65
C13	620068	000219	70.00	1393.00	2522.00	1292.00	1070.50	-221.50
C13	620195	000253	474.00	2163.00	3409.00	1933.00	1523.11	-409.89
C13	620201	000240	78.00	1387.00	2422.00	978.00	1052.85	74.85
C13	620384	000290	98.00	2003.00	2599.00	1352.00	1262.11	-89.89
C13	620421	000285	67.00	1733.00	3084.00	1453.00	1254.86	-198.14
C14	120244	001521	135.00	2980.00	2782.00	919.00	1575.10	656.10
C14	120269	001577	111.00	2930.00	3222.00	1550.00	1626.22	76.22
C14	120426	001771	82.00	1902.00	2131.00	1382.00	1152.77	-229.23
C14	220312	000815	79.00	1068.00	2556.00	1031.00	984.32	-46.68
C14	220349	000850	54.00	1352.00	2333.00	1223.00	1023.06	-199.94
C14	320023	100059	73.00	1875.00	2712.00	1308.00	1236.57	-71.43
C14	320040	100130	291.00	1999.00	3302.00	1736.00	1417.10	-318.90
C14	320368	100667	137.00	1759.00	2540.00	903.00	1190.84	287.84
C14	420452	000575	85.00	3241.00	3389.00	1565.00	1735.15	170.15
C14	420500	000658	85.00	1998.00	2648.00	1180.00	1263.88	83.88
C14	520002	100045	106.00	1532.00	1543.00	715.00	958.89	243.89
C14	520003	100109	113.00	1615.00	1740.00	883.00	1015.73	132.73
C14	520071	100015	68.00	791.00	886.00	505.00	634.50	129.50
C14	520265	100570	81.00	596.00	621.00	373.00	539.63	166.63
C14	620071	000220	73.00	1568.00	1847.00	1567.00	1010.39	-556.61
C14	620072	000248	130.00	1908.00	964.00	792.00	977.71	185.71

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
C15	120235	001477	68.00	1440.00	2518.00	1060.00	1081.00	21.00
C15	220251	001608	37.00	149.00	130.00	98.00	323.83	225.83
C15	320383	100865	72.00	2214.00	2309.00	1556.00	1267.46	-288.54
C15	420155	000155	93.00	2067.00	3588.00	634.00	1436.59	802.59
C15	420480	000628	50.00	2347.00	3282.00	1012.00	1456.67	444.67
C15	520141	100272	68.00	2292.00	2739.00	1231.00	1359.54	128.54
C15	520329	100632	42.00	1879.00	2488.00	984.00	1194.47	210.47
C15	620062	000106	73.00	2231.00	3091.00	1127.00	1398.39	271.39
C17	120137	001350	79.00	1736.00	1985.00	1331.00	1081.56	-249.44
C17	120223	001461	76.00	1667.00	2634.00	1119.00	1165.81	46.81
C17	220010	000934	69.00	2424.00	2738.00	1408.00	1395.30	-12.70
C17	220121	001273	65.00	2238.00	2591.00	1218.00	1318.03	100.03
C17	320201	100387	94.00	1744.00	2858.00	1509.00	1227.84	-281.16
C17	320245	100416	94.00	2058.00	2604.00	1427.00	1276.51	-150.49
C17	420427	000526	74.00	3460.00	3183.00	1860.00	1761.46	-98.54
C17	420578	000837	101.00	2480.00	3527.00	1881.00	1556.84	-324.16
C17	620070	000071	89.00	1434.00	3092.00	1156.00	1176.56	20.56
C17	620365	000163	84.00	1657.00	2303.00	1331.00	1111.54	-219.46
C18	120438	001813	66.00	1104.00	2256.00	602.00	943.21	341.21
C18	220263	001653	32.00	413.00	1417.00	440.00	604.61	164.61
C18	220326	001862	51.00	481.00	1571.00	473.00	653.05	180.05
C18	320048	100640	82.00	1668.00	2083.00	853.00	1078.78	225.78
C18	320244	100415	92.00	727.00	1262.00	588.00	682.46	94.46
C18	520125	100530	83.00	1642.00	1339.00	909.00	951.88	42.88
C18	520183	100439	129.00	1503.00	1048.00	1205.00	882.75	-322.25
C18	520188	100250	81.00	599.00	1089.00	547.00	615.82	68.82
C18	520214	100475	65.00	1566.00	1751.00	1055.00	992.52	-62.48
C18	520263	100481	90.00	1004.00	1910.00	713.00	864.75	151.75
C18	620415	000185	61.00	798.00	1533.00	626.00	739.02	113.02
C19	120422	001761	69.00	1839.00	1850.00	867.00	1086.69	274.69
C19	220008	000929	47.00	825.00	1574.00	542.00	750.02	208.02
C19	220266	001645	21.00	1848.00	2022.00	1302.00	1105.82	-196.18
C19	320018	100053	156.00	1394.00	3577.00	1431.00	1258.81	-172.19
C19	320436	101174	91.00	2016.00	2119.00	972.00	1185.20	213.20
C19	320447	101198	100.00	1795.00	2126.00	922.00	1125.83	203.83
C19	420431	000530	62.00	1282.00	2683.00	749.00	1061.43	312.43
C19	420488	000587	40.00	734.00	987.00	455.00	628.14	173.14
C19	620021	000087	68.00	2392.00	1981.00	1548.00	1264.14	-283.86
C19	620073	000080	106.00	1976.00	2306.00	1186.00	1207.45	21.45
C19	620211	000187	77.00	710.00	1472.00	715.00	707.98	-7.02
C20	520320	100624	73.00	843.00	1329.00	348.00	721.70	373.70
C20	520325	100621	64.00	514.00	857.00	213.00	550.47	337.47
F30	120026	001196	118.00	2283.00	2588.00	1355.00	1342.56	-12.44
F30	120409	001798	85.00	843.00	1882.00	1465.00	813.49	-651.51
F30	120435	001721	88.00	939.00	4021.00	1611.00	1185.71	-425.29
F30	120436	001804	164.00	772.00	1814.00	1689.00	800.72	-888.28
F30	220087	001201	104.00	2244.00	4293.00	2264.00	1602.75	-661.25
F30	220257	001622	122.00	2286.00	2433.00	1442.00	1319.38	-122.62
F30	220294	001788	105.00	635.00	2699.00	1087.00	890.74	-196.26
F30	220296	000843	125.00	1856.00	3042.00	1367.00	1296.35	-70.65

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F30	220306	001901	79.00	822.00	3232.00	1228.00	1023.48	-204.52
F30	220353	001876	92.00	943.00	2670.00	903.00	970.28	67.28
F30	320062	100347	146.00	2394.00	4262.00	1805.00	1649.95	-155.05
F30	320349	100617	114.00	1088.00	3600.00	1244.00	1166.15	-77.85
F30	320377	100950	121.00	2078.00	3466.00	2014.00	1426.54	-587.46
F30	320386	100800	178.00	795.00	1887.00	1671.00	822.23	-848.77
F30	320388	100825	91.00	1673.00	2832.00	1331.00	1202.85	-128.15
F30	420051	000050	91.00	2557.00	812.00	1195.00	1128.00	-67.00
F30	420084	000089	105.00	3022.00	3181.00	1645.00	1644.28	-0.72
F30	420145	000145	99.00	3875.00	4057.00	1832.00	2025.46	193.46
F30	420412	000511	112.00	2682.00	4003.00	2345.00	1681.94	-663.06
F30	420503	000661	77.00	2322.00	1395.00	881.00	1152.07	271.07
F30	520005	100232	74.00	2252.00	3390.00	1730.00	1452.70	-277.30
F30	520260	100506	72.00	1906.00	2922.00	1317.00	1278.92	-38.08
F30	520270	100474	113.00	300.00	1236.00	572.00	562.22	-9.78
F30	520299	100588	106.00	2152.00	887.00	1258.00	1028.86	-229.14
F30	520305	100589	131.00	2228.00	936.00	1239.00	1064.05	-174.95
F30	620300	000175	84.00	1308.00	3404.00	1751.00	1189.95	-561.05
F30	620327	000057	206.00	3355.00	3077.00	1822.00	1745.20	-76.80
F30	620333	000075	114.00	1935.00	3268.00	1358.00	1352.55	-5.45
F30	620367	000153	119.00	1674.00	2743.00	1375.00	1227.48	-147.52
F30	620434	000332	148.00	545.00	2498.00	824.00	842.85	18.85
F30	620437	000338	115.00	1281.00	2597.00	1340.00	1059.57	-280.43
F31	120129	001340	282.00	2424.00	3755.00	2865.00	1608.30	-1256.70
F31	120252	001552	120.00	2713.00	4300.00	1452.00	1740.38	288.38
F31	320378	100765	150.00	3584.00	3712.00	2407.00	1899.32	-507.68
F31	620009	000014	196.00	3561.00	3174.00	2465.00	1816.84	-648.16
F32	120132	001344	337.00	1979.00	3133.00	1712.00	1394.88	-317.12
F32	120159	001382	112.00	1749.00	2356.00	1523.00	1152.61	-370.39
F32	120181	001405	1460.00	2535.00	4378.00	2818.00	2012.59	-805.41
F32	120191	001414	144.00	2829.00	4026.00	2452.00	1734.68	-717.32
F32	120220	001431	132.00	1743.00	2621.00	2114.00	1230.39	-883.61
F32	120250	001550	110.00	1615.00	4170.00	1579.00	1406.21	-172.79
F32	120267	001575	159.00	1461.00	3498.00	2234.00	1265.76	-968.24
F32	220031	001061	178.00	885.00	3239.00	1802.00	1065.36	-736.64
F32	220114	001246	45.00	2163.00	3753.00	1952.00	1479.23	-472.77
F32	220117	001257	72.00	1821.00	3595.00	1935.00	1363.19	-571.81
F32	220140	001330	81.00	1810.00	3170.00	1806.00	1293.74	-512.26
F32	220161	001362	115.00	1769.00	3720.00	2358.00	1378.54	-979.46
F32	220211	001558	76.00	3957.00	4242.00	2761.00	2073.14	-687.86
F32	320026	100068	111.00	1686.00	4231.00	2474.00	1436.37	-1037.63
F32	320096	100169	80.00	1701.00	3242.00	1623.00	1274.24	-348.76
F32	320115	100216	138.00	2790.00	2950.00	2120.00	1549.03	-570.97
F32	320225	100430	128.00	2885.00	4102.00	2417.00	1773.56	-643.44
F32	320229	100442	188.00	2229.00	4273.00	2609.00	1614.71	-994.29
F32	320268	100602	105.00	1346.00	4127.00	2040.00	1321.96	-718.04
F32	320325	100616	112.00	939.00	4169.00	1972.00	1215.09	-756.91
F32	320394	101070	98.00	2234.00	3630.00	1908.00	1491.80	-416.20
F32	420003	000003	161.00	2097.00	3765.00	2109.00	1489.31	-619.69
F32	420048	000051	115.00	4173.00	3750.00	2270.00	2064.13	-205.87

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NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F32	420095	000092	84.00	3408.00	3108.00	1944.00	1736.97	-207.03
F32	420101	000102	154.00	2550.00	3873.00	1865.00	1633.35	-231.65
F32	420182	000182	86.00	1772.00	3909.00	1469.00	1403.10	-65.90
F32	420340	000387	139.00	2366.00	3396.00	1750.00	1500.99	-249.01
F32	420341	000388	74.00	1551.00	3575.00	1706.00	1283.98	-422.02
F32	420440	000561	109.00	1583.00	4179.00	1113.00	1398.37	285.37
F32	520018	100261	162.00	3177.00	4112.00	2831.00	1851.23	-979.77
F32	520083	100155	412.00	838.00	733.00	658.00	702.78	44.78
F32	520101	100139	128.00	2593.00	3389.00	2257.00	1561.60	-695.40
F32	520107	100067	94.00	320.00	2009.00	828.00	687.92	-140.08
F32	520174	100218	145.00	1933.00	4108.00	2740.00	1494.38	-1245.62
F32	520240	100504	136.00	2547.00	2930.00	2212.00	1476.54	-735.46
F32	520256	100388	161.00	1855.00	3376.00	1537.00	1358.16	-178.84
F32	520266	100507	107.00	870.00	2141.00	906.00	867.92	-38.08
F32	620080	000117	120.00	1586.00	3490.00	1706.00	1290.85	-415.15
F32	620082	000156	146.00	1552.00	2872.00	1774.00	1187.75	-586.25
F32	620083	000123	139.00	2312.00	4746.00	2582.00	1703.02	-878.98
F32	620084	000157	178.00	1467.00	2878.00	1754.00	1172.05	-581.95
F32	620085	000094	118.00	1506.00	3753.00	1657.00	1310.07	-346.93
F32	620203	000095	120.00	1441.00	3713.00	1676.00	1285.69	-390.31
F32	620442	000345	1395.00	3273.00	4986.00	2939.00	2304.41	-634.59
F33	120017	001163	404.00	1048.00	2821.00	818.00	1096.52	278.52
F33	120019	001164	150.00	1921.00	3715.00	1218.00	1428.88	210.88
F33	120047	001239	223.00	2707.00	4428.00	1746.00	1783.12	37.12
F33	120091	001297	197.00	2324.00	4414.00	1452.00	1666.40	214.40
F33	120093	001300	175.00	924.00	3070.00	1061.00	1048.50	-12.50
F33	120114	001324	126.00	1724.00	1574.00	816.00	1022.88	206.88
F33	120148	001363	177.00	3935.00	5046.00	1753.00	2219.71	466.71
F33	120165	001385	181.00	803.00	2064.00	735.00	853.68	118.68
F33	120168	001388	196.00	2113.00	3912.00	959.00	1525.60	566.60
F33	120172	001396	137.00	1067.00	2059.00	877.00	917.45	40.45
F33	120177	001401	122.00	2585.00	3403.00	1060.00	1623.18	563.18
F33	120183	001407	222.00	2042.00	3370.00	1352.00	1424.26	72.26
F33	120185	001409	168.00	817.00	2022.00	797.00	846.46	49.46
F33	120186	001372	190.00	793.00	1746.00	732.00	801.74	69.74
F33	120202	001425	247.00	2620.00	4371.00	965.00	1757.41	792.41
F33	120277	001591	86.00	783.00	2347.00	903.00	871.59	-31.41
F33	120283	001607	90.00	1304.00	3783.00	1065.00	1251.22	186.22
F33	220004	000932	234.00	890.00	2036.00	717.00	886.07	169.07
F33	220005	000930	98.00	1177.00	3284.00	1124.00	1136.78	12.78
F33	220054	001096	81.00	1569.00	3492.00	674.00	1277.33	603.33
F33	220115	001247	90.00	708.00	2542.00	683.00	882.67	199.67
F33	220142	001332	275.00	1720.00	3439.00	1079.00	1356.45	277.45
F33	220148	001342	147.00	1945.00	3836.00	839.00	1464.12	625.12
F33	220168	001378	108.00	861.00	2982.00	1263.00	1000.99	-262.01
F33	220192	001452	120.00	1151.00	3147.00	1197.00	1112.45	-84.55
F33	220221	001573	222.00	972.00	2720.00	1391.00	1016.63	-374.37
F33	220228	001583	76.00	578.00	2095.00	763.00	770.66	7.66
F33	220235	001591	82.00	1858.00	3467.00	1521.00	1355.38	-165.62
F33	220249	001606	69.00	648.00	2384.00	933.00	835.39	-97.61

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F33	220269	001655	81.00	1508.00	2710.00	713.00	1134.17	421.17
F33	220289	001791	163.00	1254.00	3041.00	1071.00	1134.50	63.50
F33	220316	000825	76.00	450.00	2122.00	698.00	738.76	40.76
F33	320027	100687	202.00	2630.00	4003.00	1002.00	1688.04	686.04
F33	320044	100111	130.00	2002.00	4248.00	849.00	1532.99	683.99
F33	320082	100346	114.00	869.00	1531.00	676.00	771.06	95.06
F33	320125	100242	274.00	517.00	1174.00	704.00	650.94	-53.06
F33	320149	100278	239.00	1012.00	2497.00	992.00	995.99	3.99
F33	320159	100290	237.00	816.00	2095.00	987.00	875.31	-111.69
F33	320160	100289	262.00	2045.00	3344.00	1350.00	1430.18	80.18
F33	320167	100361	94.00	962.00	2089.00	610.00	882.60	272.60
F33	320214	100546	202.00	1954.00	2574.00	976.00	1266.57	290.57
F33	320275	100469	75.00	1867.00	3459.00	1142.00	1355.02	213.02
F33	320284	100505	268.00	1121.00	3175.00	1112.00	1142.71	30.71
F33	320371	100109	244.00	1021.00	3352.00	1221.00	1137.33	-83.67
F33	320379	100793	289.00	2204.00	3921.00	1158.00	1574.06	416.06
F33	320396	100792	185.00	991.00	2610.00	726.00	995.74	269.74
F33	320397	100797	117.00	1280.00	3103.00	1340.00	1141.20	-198.80
F33	420037	000031	150.00	1272.00	3366.00	802.00	1188.91	386.91
F33	420040	000036	69.00	1514.00	2762.00	678.00	1060.98	382.98
F33	420041	000039	174.00	1685.00	3615.00	1183.00	1351.50	168.50
F33	420079	000079	99.00	2047.00	3523.00	1017.00	1421.85	404.85
F33	420080	000080	220.00	1943.00	3820.00	1054.00	1468.21	414.21
F33	420092	000097	136.00	691.00	1495.00	429.00	719.95	290.95
F33	420111	000112	147.00	1309.00	3255.00	847.00	1180.83	333.83
F33	420124	000125	215.00	2073.00	3543.00	763.00	1459.27	696.27
F33	420137	000136	69.00	3379.00	4178.00	980.00	1897.31	917.31
F33	420139	000139	163.00	1216.00	3394.00	721.00	1180.57	459.57
F33	420140	000140	92.00	1336.00	3315.00	847.00	1185.41	338.41
F33	420192	000192	119.00	1357.00	3534.00	658.00	1232.85	574.85
F33	420206	000206	78.00	1580.00	2146.00	612.00	1063.08	451.08
F33	420324	000348	262.00	3311.00	4064.00	1190.00	1904.59	714.59
F33	420486	000634	74.00	1169.00	3303.00	815.00	1132.02	317.02
F33	520019	100056	94.00	1286.00	2447.00	520.00	1031.98	511.98
F33	520021	100138	158.00	1479.00	2666.00	771.00	1136.70	365.70
F33	520044	100501	229.00	1444.00	2830.00	911.00	1169.61	258.61
F33	520112	100572	301.00	886.00	2269.00	699.00	937.95	238.95
F33	520166	100176	125.00	1878.00	3602.00	2030.00	1392.72	-637.28
F33	520175	100271	243.00	1786.00	3068.00	811.00	1308.01	497.01
F33	520176	100493	108.00	1174.00	2335.00	1096.00	985.47	-110.53
F33	520177	100228	127.00	2051.00	3324.00	1717.00	1397.42	-319.58
F33	520221	100334	218.00	1196.00	2705.00	1049.00	1076.72	27.72
F33	520227	100491	162.00	2191.00	2199.00	1408.00	1264.06	-143.94
F33	520229	100293	368.00	1078.00	2734.00	976.00	1082.68	106.68
F33	520241	100442	150.00	1753.00	1885.00	982.00	1086.71	104.71
F33	520253	100549	192.00	1847.00	2821.00	804.00	1273.72	469.72
F33	520283	100606	197.00	2040.00	3727.00	1399.00	1475.38	76.38
F33	520311	100599	208.00	1694.00	3070.00	1251.00	1274.18	23.18
F33	620016	000015	200.00	1784.00	3321.00	1485.00	1338.22	-146.78
F33	620018	000019	95.00	2071.00	3463.00	822.00	1418.06	596.06

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F33	620090	000150	191.00	733.00	2812.00	806.00	956.58	150.58
F33	620091	000246	126.00	2025.00	3523.00	1370.00	1421.87	51.87
F33	620095	000329	166.00	1989.00	3464.00	835.00	1411.43	576.43
F33	620218	000105	87.00	1238.00	2942.00	955.00	1096.45	141.45
F33	620225	000232	151.00	1565.00	3183.00	940.00	1242.66	302.66
F33	620231	000064	145.00	2051.00	3049.00	689.00	1357.32	668.32
F33	620246	000191	102.00	3494.00	4593.00	1706.00	2004.55	298.55
F33	620256	000226	93.00	1581.00	2408.00	826.00	1109.01	283.01
F33	620258	000183	59.00	1079.00	2987.00	1085.00	1052.19	-32.81
F33	620265	000182	84.00	1011.00	2745.00	1040.00	999.76	-40.24
F33	620297	000108	57.00	747.00	2281.00	655.00	844.06	189.06
F33	620363	000203	107.00	792.00	2721.00	1001.00	939.21	-61.79
F33	620392	000330	98.00	2408.00	3864.00	1026.00	1578.74	552.74
F33	620393	000286	167.00	886.00	2738.00	919.00	982.44	63.44
F33	620424	000304	194.00	1861.00	3899.00	833.00	1451.69	618.69
F34	120033	001206	117.00	3145.00	2201.00	1751.00	1524.13	-226.87
F34	120079	001282	176.00	3002.00	3143.00	1963.00	1648.93	-314.07
F34	120086	001290	293.00	3589.00	3341.00	2219.00	1874.10	-344.90
F34	120147	001360	238.00	1135.00	2046.00	1051.00	974.98	-76.02
F34	120155	001374	250.00	3015.00	2951.00	1595.00	1638.82	43.82
F34	120196	001419	187.00	3414.00	3382.00	2172.00	1806.61	-365.39
F34	120204	001427	263.00	2032.00	2545.00	1292.00	1298.11	6.11
F34	120218	001456	150.00	2181.00	2891.00	1306.00	1369.85	63.85
F34	120224	001462	287.00	3404.00	3624.00	2166.00	1865.88	-300.12
F34	120226	001465	267.00	1362.00	2762.00	1455.00	1144.24	-310.76
F34	120233	001474	236.00	3459.00	3556.00	1944.00	1858.71	-85.29
F34	120263	001569	363.00	2743.00	2182.00	1477.00	1465.85	-11.15
F34	120268	001576	96.00	3304.00	2987.00	1810.00	1690.82	-119.18
F34	120270	001578	242.00	2652.00	2691.00	1577.00	1492.32	-84.68
F34	120271	001579	106.00	2423.00	2553.00	1407.00	1373.79	-33.21
F34	120272	001580	252.00	2324.00	2667.00	1346.00	1397.89	51.89
F34	120279	001598	303.00	4050.00	3868.00	2188.00	2091.79	-96.21
F34	120282	001606	298.00	3073.00	3381.00	1820.00	1735.57	-84.43
F34	120297	001656	272.00	2529.00	1911.00	1389.00	1338.87	-50.13
F34	120300	001659	297.00	3012.00	2521.00	1600.00	1579.63	-20.37
F34	220002	000926	99.00	2003.00	2583.00	917.00	1258.07	341.07
F34	220110	001234	67.00	3104.00	2843.00	2022.00	1604.30	-417.70
F34	220120	001269	118.00	1762.00	2752.00	1334.00	1221.42	-112.58
F34	220127	001306	116.00	1195.00	2459.00	1296.00	1013.23	-282.77
F34	220147	001340	66.00	1820.00	2409.00	1327.00	1170.60	-156.40
F34	220167	001376	153.00	1199.00	2405.00	1247.00	1014.23	-232.77
F34	220171	001386	213.00	2438.00	2887.00	2103.00	1456.56	-646.44
F34	220226	001579	245.00	709.00	1881.00	1323.00	812.41	-510.59
F34	220238	001595	101.00	2030.00	2184.00	1243.00	1201.94	-41.06
F34	220241	001598	36.00	1537.00	1812.00	677.00	987.41	310.41
F34	220243	001600	68.00	2024.00	1503.00	1139.00	1082.98	-56.02
F34	220246	001603	81.00	1067.00	2039.00	1153.00	901.27	-251.73
F34	220253	001610	86.00	783.00	1647.00	1023.00	758.91	-264.09
F34	220260	001626	99.00	1945.00	2460.00	1153.00	1221.84	68.84
F34	220283	001754	178.00	1772.00	2237.00	1037.00	1155.23	118.23

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F34	220284	001785	81.00	1116.00	2701.00	1363.00	1021.72	-341.28
F34	220287	001790	59.00	2425.00	3353.00	1837.00	1492.27	-344.73
F34	220288	001799	83.00	1660.00	1601.00	1015.00	999.15	-15.85
F34	220313	001797	190.00	2564.00	2875.00	534.00	1484.99	950.99
F34	320057	100379	77.00	1236.00	2837.00	1412.00	1076.67	-335.33
F34	320069	100186	114.00	2966.00	3427.00	1868.00	1670.10	-197.90
F34	320072	100128	469.00	3430.00	3901.00	2319.00	1959.94	-359.06
F34	320073	100126	98.00	3281.00	3342.00	2078.00	1741.92	-336.08
F34	320080	100170	114.00	2225.00	2746.00	1565.00	1349.03	-215.97
F34	320090	100221	89.00	2526.00	3302.00	1404.00	1519.60	115.60
F34	320129	100228	74.00	2550.00	3233.00	1705.00	1511.82	-193.18
F34	320174	100343	160.00	2501.00	3179.00	1686.00	1509.15	-176.85
F34	320213	100398	146.00	3025.00	3003.00	1806.00	1625.96	-180.04
F34	320228	100547	113.00	2743.00	3183.00	1912.00	1567.45	-344.55
F34	320236	100426	114.00	2047.00	3315.00	1664.00	1391.83	-272.17
F34	320256	101197	137.00	3673.00	3342.00	1793.00	1863.36	70.36
F34	320273	100489	245.00	2170.00	3064.00	1133.00	1416.57	283.57
F34	320295	100591	97.00	1910.00	3218.00	1113.00	1333.49	220.49
F34	320301	100864	125.00	2037.00	2391.00	1424.00	1228.31	-195.69
F34	320337	100605	376.00	3020.00	3232.00	1915.00	1714.63	-200.37
F34	320405	100890	219.00	1810.00	2433.00	1104.00	1206.80	102.80
F34	320431	100944	233.00	1066.00	3124.00	1756.00	1110.83	-645.17
F34	420014	000018	212.00	2512.00	1965.00	1202.00	1328.86	126.86
F34	420016	000015	273.00	2762.00	2616.00	1573.00	1519.57	-54.43
F34	420017	000016	176.00	2810.00	2083.00	1286.00	1423.92	137.92
F34	420030	000032	89.00	2771.00	2382.00	1407.00	1440.88	33.88
F34	420031	000024	188.00	2546.00	1881.00	1334.00	1319.42	-14.58
F34	420032	000010	208.00	2921.00	3131.00	1517.00	1631.46	114.46
F34	420044	000038	158.00	3027.00	3055.00	1642.00	1637.67	-4.33
F34	420045	000041	59.00	2317.00	2059.00	1273.00	1398.26	125.26
F34	420054	000057	188.00	2812.00	2630.00	1299.00	1515.32	216.32
F34	420061	000063	308.00	3002.00	3242.00	1698.00	1695.41	7.41
F34	420072	000071	71.00	2631.00	2078.00	1179.00	1348.13	169.13
F34	420074	000074	103.00	2931.00	2950.00	1597.00	1580.86	-16.14
F34	420076	000078	115.00	2600.00	3037.00	1186.00	1503.91	317.91
F34	420083	000085	354.00	3219.00	3063.00	1459.00	1738.68	279.68
F34	420085	000090	79.00	2255.00	3079.00	1496.00	1404.65	-91.35
F34	420110	000111	419.00	2619.00	3316.00	1777.00	1624.54	-152.46
F34	420113	000114	137.00	2565.00	3027.00	1375.00	1497.48	122.48
F34	420114	000115	82.00	2220.00	2249.00	1023.00	1261.82	238.82
F34	420132	000131	67.00	2268.00	2189.00	910.00	1262.28	352.28
F34	420143	000143	169.00	2160.00	2157.00	1075.00	1250.15	175.15
F34	420151	000151	81.00	2289.00	2576.00	1116.00	1333.76	217.76
F34	520051	100050	76.00	1881.00	2487.00	1381.00	1202.74	-178.26
F34	520057	100009	78.00	1016.00	1589.00	1160.00	813.70	-346.30
F34	520061	100100	242.00	2457.00	3610.00	1683.00	1585.04	-97.96
F34	520074	100021	269.00	1833.00	2274.00	1287.00	1199.52	-87.48
F34	520124	100061	282.00	2543.00	2311.00	1579.00	1409.54	-189.46
F34	520167	100485	120.00	1651.00	2184.00	645.00	1099.02	454.02
F34	520189	100280	143.00	1800.00	2763.00	1394.00	1239.74	-154.26

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F34	520198	100479	165.00	2115.00	2632.00	1388.00	1312.94	-75.06
F34	520203	100487	272.00	1788.00	2074.00	1321.00	1155.27	-165.73
F34	520207	100566	165.00	1323.00	2133.00	1046.00	1008.34	-37.66
F34	520226	100476	168.00	2242.00	2266.00	1179.00	1290.68	111.68
F34	520233	100503	104.00	1565.00	2460.00	1183.00	1115.39	-67.61
F34	520235	100623	252.00	1448.00	1500.00	871.00	961.96	90.96
F34	520251	100489	106.00	1663.00	1941.00	1114.00	1060.06	-53.94
F34	520254	100455	222.00	1959.00	2468.00	1364.00	1255.55	-108.45
F34	520318	100622	207.00	2090.00	2279.00	1296.00	1258.75	-37.25
F34	520355	100708	355.00	2305.00	1986.00	1496.00	1306.72	-189.28
F34	520372	100791	37.00	544.00	1075.00	419.00	587.81	168.81
F34	620017	000036	121.00	758.00	1661.00	929.00	762.18	-166.82
F34	620024	000025	245.00	3310.00	2868.00	1509.00	1707.84	198.84
F34	620025	000072	120.00	2688.00	3180.00	1669.00	1553.01	-115.99
F34	620074	000039	142.00	2320.00	3697.00	1811.00	1537.12	-273.88
F34	620075	000049	225.00	3080.00	1832.00	1844.00	1471.31	-372.69
F34	620076	000119	370.00	3355.00	3465.00	1954.00	1845.61	-108.39
F34	620077	000067	318.00	2513.00	2890.00	1931.00	1502.58	-428.42
F34	620078	000081	120.00	1254.00	2622.00	1055.00	1057.10	2.10
F34	620079	000062	175.00	1987.00	3431.00	1361.00	1407.63	46.63
F34	620088	000083	87.00	906.00	1562.00	801.00	780.28	-20.72
F34	620096	000259	108.00	1463.00	2621.00	1115.00	1113.35	-1.65
F34	620097	000300	171.00	1507.00	2062.00	1192.00	1050.40	-141.60
F34	620098	000205	133.00	1350.00	2051.00	1057.00	995.38	-61.62
F34	620194	000269	217.00	1654.00	2540.00	1487.00	1179.62	-307.38
F34	620207	000047	105.00	3458.00	3365.00	2422.00	1797.36	-624.64
F34	620226	000151	132.00	2713.00	2717.00	1764.00	1488.33	-275.67
F34	620236	000180	194.00	2225.00	2222.00	1375.00	1284.80	-90.20
F34	620242	000051	211.00	1881.00	3124.00	1593.00	1336.52	-256.48
F35	120182	001406	274.00	3799.00	2876.00	1865.00	1851.76	-13.24
F35	120187	001410	257.00	2836.00	3040.00	1404.00	1604.65	200.65
F35	120190	001413	280.00	3006.00	3927.00	1775.00	1735.94	-39.06
F35	120260	001565	240.00	3416.00	3854.00	1804.00	1895.43	91.43
F35	120261	001566	119.00	2000.00	3209.00	1465.00	1379.66	-85.34
F35	120275	001585	135.00	2779.00	3573.00	1681.00	1645.51	-35.49
F35	120276	001586	327.00	2273.00	2768.00	1401.00	1418.76	17.76
F35	120293	001659	335.00	1887.00	3129.00	1527.00	1367.72	-159.28
F35	120313	001676	220.00	2437.00	2958.00	1452.00	1469.33	17.33
F35	120319	001683	221.00	1329.00	2333.00	1026.00	1055.19	29.19
F35	120326	001690	129.00	2442.00	3248.00	1435.00	1496.37	61.37
F35	220112	001242	96.00	2911.00	3003.00	1712.00	1582.11	370.11
F35	220152	001351	102.00	2103.00	2631.00	1098.00	1294.81	196.81
F35	220153	001360	106.00	740.00	1108.00	696.00	679.08	-16.92
F35	220178	001412	95.00	1922.00	3065.00	1056.00	1309.48	253.48
F35	220219	001571	78.00	1531.00	2316.00	1443.00	1076.57	-366.43
F35	220232	001588	37.00	1875.00	2832.00	1203.00	1247.56	44.56
F35	220245	001602	44.00	945.00	1350.00	545.00	747.25	202.25
F35	220255	001612	61.00	1381.00	1451.00	786.00	890.91	104.91
F35	220270	001656	51.00	1687.00	2635.00	1008.00	1165.85	157.85
F35	220274	001728	230.00	2414.00	3034.00	1751.00	1477.37	-273.63

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F35	220276	001730	113.00	1684.00	2552.00	1153.00	1165.98	12.98
F35	320008	100033	111.00	2295.00	2285.00	1088.00	1295.56	207.56
F35	320011	100042	294.00	892.00	1626.00	1501.00	834.52	-666.48
F35	320019	100054	117.00	2264.00	2115.00	1457.00	1260.80	-196.20
F35	320104	100259	229.00	2135.00	3337.00	1745.00	1446.91	-298.09
F35	320126	100247	132.00	2485.00	3234.00	1704.00	1506.99	-197.01
F35	320143	100332	155.00	2101.00	2986.00	1434.00	1363.65	-70.35
F35	320154	100320	193.00	1995.00	3009.00	1661.00	1346.13	-314.87
F35	320173	100317	109.00	2966.00	3867.00	1516.00	1739.78	223.78
F35	320203	100383	55.00	675.00	1343.00	1394.00	672.21	-721.79
F35	320237	100412	445.00	1244.00	2080.00	1399.00	1042.22	-356.78
F35	420093	000099	59.00	3828.00	3837.00	1556.00	1967.48	411.48
F35	420116	000116	70.00	2417.00	2613.00	1312.00	1373.42	61.42
F35	420130	000129	60.00	2869.00	2928.00	1256.00	1549.81	293.81
F35	420146	000146	73.00	837.00	2033.00	650.00	859.98	209.98
F35	420148	000148	110.00	2752.00	2111.00	1289.00	1396.73	107.73
F35	420194	000194	99.00	2186.00	2511.00	1070.00	1298.30	228.30
F35	420195	000195	216.00	2819.00	1177.00	1110.00	1289.59	179.59
F35	420198	000198	95.00	2809.00	3197.00	1064.00	1583.94	519.94
F35	420201	000201	204.00	3161.00	3341.00	1252.00	1732.30	480.30
F35	420642	000979	127.00	1301.00	2070.00	1365.00	983.17	-381.83
F35	520058	100209	211.00	2050.00	2956.00	2201.00	1357.34	-843.66
F35	520086	100231	125.00	2779.00	3150.00	1840.00	1575.10	-264.90
F35	520095	100532	352.00	1289.00	2522.00	1200.00	1104.32	-95.68
F35	520146	100101	328.00	2380.00	749.00	1213.00	1122.57	-90.43
F35	520168	100413	100.00	2050.00	2944.00	1142.00	1313.62	171.62
F35	520171	100188	131.00	3060.00	3788.00	3093.00	1758.77	-1334.23
F35	520178	100262	110.00	2493.00	2127.00	1444.00	1325.96	-118.04
F35	520193	100270	187.00	2150.00	2653.00	1547.00	1331.32	-215.68
F35	620093	000266	123.00	2351.00	3335.00	1155.00	1483.22	328.22
F35	620228	000270	155.00	932.00	1644.00	751.00	816.58	65.58
F35	620234	000032	116.00	3558.00	3912.00	1681.00	1916.28	35.28
F35	620233	000195	193.00	820.00	1684.00	872.00	800.10	-71.90
F35	620273	000250	-1.00	-4.00	-4.00	522.00		
F35	620279	000130	196.00	2799.00	3499.00	1812.00	1653.38	-158.62
F35	620308	000258	87.00	2013.00	2719.00	1809.00	1280.02	-528.98
F35	620323	000033	198.00	2265.00	3253.00	1616.00	1463.02	-152.98
F35	620396	000288	140.00	2149.00	2714.00	1456.00	1329.99	-126.01
F36	120118	001329	105.00	2539.00	3139.00	1499.00	1508.79	19.79
F36	120296	001654	180.00	1439.00	2195.00	818.00	1054.64	236.64
F36	120306	001667	153.00	1696.00	2706.00	1065.00	1203.43	138.43
F36	220195	001460	192.00	824.00	1829.00	780.00	824.34	44.34
F36	220248	001605	110.00	1072.00	2216.00	875.00	937.99	62.89
F36	220303	001860	107.00	939.00	1715.00	696.00	917.75	121.75
F36	220324	000824	100.00	859.00	1897.00	673.00	823.91	150.91
F36	220358	001878	133.00	675.00	1435.00	804.00	785.56	-18.44
F36	320204	100461	132.00	1222.00	2725.00	1025.00	1067.40	42.40
F36	320241	100410	138.00	1388.00	2456.00	701.00	1072.49	371.49
F36	320248	100427	355.00	2957.00	3756.00	1957.00	1776.28	-180.72
F36	420104	000105	111.00	1395.00	2394.00	756.00	1058.25	302.25

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F36	420246	000246	108.00	1925.00	2700.00	981.00	1256.90	275.90
F36	420314	000335	156.00	1684.00	2615.00	865.00	1186.07	321.07
F36	420338	000384	123.00	826.00	2225.00	868.00	872.69	4.69
F36	520222	100499	161.00	2457.00	2768.00	1353.00	1430.76	77.76
F36	520223	100472	135.00	1921.00	2074.00	1233.00	1161.24	-71.76
F36	520353	100684	139.00	1065.00	1489.00	560.00	825.36	265.36
F36	520366	100697	125.00	2014.00	1859.00	871.00	1150.65	279.65
F36	620199	000281	163.00	1295.00	2208.00	832.00	1012.02	180.02
F36	620[illegible]	000061	145.00	853.00	1823.00	648.00	820.71	172.71
F36	620266	000131	114.00	1578.00	2260.00	906.00	1089.19	183.19
F36	620443	000349	174.00	995.00	1610.00	703.00	833.34	130.34
F37	120410	001762	119.00	2538.00	4264.00	1899.00	1684.80	-214.20
F37	120536	001819	118.00	2447.00	2050.00	1726.00	1302.39	-423.61
F37	220107	001231	102.00	2524.00	3526.00	1622.00	1558.10	-63.90
F37	220310	001796	62.00	1385.00	3340.00	1262.00	1196.36	-65.64
F37	320269	100400	63.00	1897.00	3698.00	1015.00	1399.21	384.21
F37	320426	100995	134.00	3236.00	3187.00	1657.00	1712.55	55.55
F37	320435	101069	54.00	1046.00	2123.00	1298.00	902.60	-395.40
F37	420406	000505	77.00	1129.00	1854.00	672.00	888.13	216.13
F37	420587	000848	91.00	2041.00	3056.00	989.00	1343.12	354.12
F37	420593	000854	296.00	2567.00	3735.00	1199.00	1648.81	449.81
F37	520249	100466	114.00	1451.00	1378.00	465.00	911.24	446.24
F37	520335	100659	108.00	2524.00	1790.00	682.00	1280.03	598.03
F37	520337	100635	98.00	1743.00	1955.00	799.00	1084.81	285.81
F38	120161	001380	189.00	2855.00	2092.00	2022.00	1441.12	-580.88
F38	120289	001633	366.00	3029.00	3527.00	2273.00	1762.35	-510.65
F38	120324	001688	102.00	4398.00	5015.00	3292.00	2328.47	-963.53
F38	220066	001120	72.00	2787.00	4091.00	2453.00	1716.59	-736.41
F38	220204	001512	172.00	1030.00	2128.00	1525.00	926.18	-598.82
F38	220278	001743	105.00	1594.00	2434.00	1784.00	1119.65	-664.35
F38	220279	001744	91.00	823.00	1591.00	1098.00	762.37	-335.63
F38	220311	001801	172.00	2410.00	3637.00	2240.00	1559.88	-680.12
F38	320035	100105	62.00	3823.00	4263.00	2473.00	2035.33	-437.67
F38	320047	100337	98.00	2978.00	4271.00	1837.00	1805.67	-31.33
F38	320079	100411	178.00	3594.00	4254.00	2662.00	1995.88	-666.12
F38	320357	100631	140.00	2628.00	3901.00	2612.00	1656.71	-955.29
F38	420047	000049	129.00	3866.00	3217.00	2546.00	1894.63	-651.37
F38	420075	000081	112.00	4037.00	4155.00	2387.00	2090.12	-296.88
F38	420196	000136	185.00	3630.00	2855.00	2240.00	1782.48	-457.52
F38	420380	000480	62.00	1669.00	2973.00	1084.00	1217.71	133.71
F38	520010	100006	56.00	1996.00	2743.00	1774.00	1271.89	-502.11
F38	520070	100081	129.00	1506.00	1800.00	1279.00	1012.71	-266.29
F38	520113	100047	145.00	3275.00	3638.00	2195.00	1798.75	-396.25
F38	520224	100524	235.00	2869.00	3174.00	2097.00	1629.91	-467.09
F38	620086	000147	223.00	3352.00	3715.00	2239.00	1850.99	-388.01
F38	620087	000170	252.00	3222.00	3522.00	2605.00	1789.82	-815.18
F38	620089	000192	100.00	1994.00	3153.00	1963.00	1347.51	-615.49
F38	620235	000052	88.00	1120.00	2201.00	1173.00	943.98	-229.02
F38	620420	000272	156.00	2448.00	1784.00	1736.00	1268.65	-467.35
F39	120213	001447	49.00	258.00	690.00	555.00	447.62	-107.38

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F39	620245	000034	51.00	369.00	1079.00	328.00	542.13	214.13
F40	120288	001632	116.00	2282.00	2942.00	1172.00	1398.80	226.80
F40	120307	001668	266.00	2145.00	3200.00	1210.00	1436.24	226.24
F40	220244	001601	94.00	1662.00	1591.00	1027.00	1000.65	-26.35
F40	220291	001793	57.00	950.00	1629.00	486.00	796.59	310.59
F40	320013	100047	257.00	1459.00	3201.00	1087.00	1240.06	153.06
F40	320315	100564	221.00	2237.00	2903.00	1033.00	1404.07	371.07
F40	320420	101177	85.00	516.00	2910.00	1054.00	886.38	-167.62
F40	420273	000277	77.00	1576.00	1798.00	808.00	1005.69	197.69
F40	420298	000317	202.00	2118.00	2419.00	625.00	1344.70	719.70
F40	520234	100477	279.00	1026.00	1548.00	456.00	856.44	400.44
F40	520332	100637	210.00	2653.00	2567.00	1243.00	1465.24	222.24
F40	620334	000166	130.00	1343.00	2703.00	930.00	1097.66	167.66
F40	620414	000181	91.00	901.00	3692.00	1206.00	1122.68	-83.32
F41	120325	001689	57.00	1701.00	2561.00	1293.00	1159.29	-133.71
F41	120423	001753	163.00	1949.00	2771.00	1276.00	1287.85	11.85
F41	220208	001553	168.00	1173.00	2300.00	1364.00	993.44	-370.56
F41	220330	001882	63.00	647.00	1272.00	479.00	646.66	167.66
F41	220340	001873	88.00	1192.00	2237.00	1081.00	979.82	-101.18
F41	220375	001881	122.00	1155.00	2630.00	550.00	1030.82	480.82
F41	320255	100477	94.00	2025.00	3335.00	969.00	1384.20	415.20
F41	320411	101438	79.00	1231.00	1769.00	1659.00	903.79	-755.21
F41	320430	100991	104.00	1153.00	2485.00	1049.00	1002.75	-46.25
F41	420594	000855	174.00	2048.00	3422.00	1448.00	1423.23	-24.77
F41	420607	000869	82.00	1202.00	2355.00	955.00	990.60	35.60
F41	520109	100416	107.00	1567.00	2208.00	961.00	1076.08	115.08
F41	520147	100490	108.00	2184.00	3154.00	1266.00	1403.32	137.32
F41	520212	100519	255.00	1892.00	2969.00	1642.00	1324.87	-317.13
F41	520336	100633	103.00	2036.00	2258.00	661.00	1217.63	556.63
F41	620338	000097	104.00	2205.00	3434.00	1120.00	1453.42	333.42
F42	120535	001818	172.00	1330.00	261.00	758.00	727.57	-30.43
F44	320446	101323	32.00	816.00	833.00	469.00	624.72	155.72
F44	420603	000867	64.00	749.00	1582.00	560.00	733.72	173.72
F44	520354	100676	113.00	329.00	532.00	356.00	466.47	110.47
F45	120462	001797	70.00	546.00	2145.00	1252.00	768.26	-483.74
F45	220118	001258	126.00	1838.00	2738.00	1092.00	1237.71	145.71
F45	220212	001559	184.00	1063.00	2032.00	1036.00	932.51	-103.49
F45	220254	001611	84.00	1573.00	1666.00	913.00	985.21	72.21
F45	220293	000823	77.00	1955.00	3119.00	1596.00	1335.95	-260.05
F45	320002	100018	453.00	2165.00	3573.00	1468.00	1548.44	80.44
F45	320009	100034	139.00	1714.00	3406.00	1507.00	1317.97	-189.03
F45	320015	100051	262.00	1195.00	2252.00	1114.00	1014.54	-99.46
F45	320049	100149	306.00	1884.00	2632.00	1447.00	1173.74	-268.26
F45	320080	100159	115.00	1471.00	2125.00	1120.00	1037.39	-82.61
F45	420169	000169	338.00	2101.00	3103.00	1111.00	1424.83	313.83
F45	420247	000247	244.00	1912.00	2330.00	1083.00	1225.12	142.12
F45	420289	000303	91.00	1748.00	2430.00	895.00	1159.38	264.38
F45	520220	100562	213.00	1777.00	2390.00	1036.00	1189.38	153.38
F45	520268	100543	216.00	1797.00	2198.00	1085.00	1164.83	79.83
F45	520269	100497	291.00	1136.00	1443.00	724.00	873.46	149.46

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
F45	520291	100573	206.00	2489.00	3230.00	1558.00	1524.60	-33.40
F45	620101	000241	120.00	1691.00	2667.00	1394.00	1188.10	-205.90
F45	620200	000164	136.00	2077.00	2956.00	1434.00	1347.63	-86.37
F46	120295	001653	62.00	605.00	2557.00	606.00	849.44	243.44
F46	120408	001722	69.00	685.00	1400.00	548.00	687.46	139.46
F46	420208	000208	86.00	2154.00	2632.00	817.00	1305.71	488.71
F46	520326	100620	76.00	410.00	1452.00	455.00	619.58	164.58
F46	520356	100679	96.00	570.00	1090.00	543.00	611.24	68.24
F46	520368	100709	88.00	657.00	2521.00	554.00	864.38	310.38
F47	120096	001305	176.00	1030.00	1763.00	1000.00	868.35	-131.65
F47	120149	001364	204.00	1441.00	2092.00	1097.00	1044.18	-52.82
F47	120194	001417	277.00	1152.00	1915.00	1247.00	950.73	-296.27
F47	220299	001808	51.00	910.00	2005.00	1262.00	844.40	-417.60
F47	220341	001868	86.00	839.00	1621.00	1066.00	770.58	-295.42
F47	320283	100580	279.00	1399.00	2272.00	1419.00	1078.61	-340.39
F47	320452	101460	350.00	927.00	2994.00	698.00	1077.61	379.61
F47	420322	000346	81.00	1327.00	2520.00	866.00	1052.33	186.33
F47	420384	000481	160.00	1635.00	2675.00	1204.00	1182.78	-21.22
F47	520209	100486	181.00	1637.00	2255.00	1110.00	1120.60	10.60
F47	520225	100283	410.00	1554.00	1766.00	1180.00	1071.36	-108.64
F47	620001	000016	277.00	602.00	1120.00	917.00	667.01	-249.99
F47	620398	000283	378.00	904.00	1243.00	411.00	795.70	384.70
G51	120020	001175	103.00	3064.00	3910.00	1264.00	1773.06	509.06
G51	120027	001197	44.00	975.00	2179.00	922.00	889.20	-32.80
G51	120028	001198	55.00	1274.00	2410.00	868.00	1013.60	145.60
G51	120041	001225	106.00	1424.00	1962.00	1270.00	995.76	-274.24
G51	120051	001247	217.00	1172.00	2142.00	1295.00	979.06	-315.94
G51	120087	001291	184.00	2078.00	2805.00	1415.00	1334.71	-80.29
G51	120095	001304	139.00	1517.00	1767.00	1106.00	998.34	-107.66
G51	220091	001206	79.00	1147.00	3069.00	1469.00	1089.28	-379.72
G51	220290	000851	123.00	1834.00	2079.00	1267.00	1134.63	-132.37
G51	220329	000816	106.00	714.00	2030.00	749.00	805.65	56.65
G51	220360	001891	59.00	938.00	1799.00	1104.00	821.02	-282.98
G51	220377	001894	88.00	817.00	2600.00	582.00	922.41	340.41
G51	320281	100630	70.00	901.00	1999.00	972.00	845.28	-126.72
G51	320354	100653	105.00	1484.00	3380.00	983.00	1240.79	257.79
G51	320356	100650	100.00	1847.00	3750.00	832.00	1401.99	569.99
G51	420250	000250	108.00	720.00	1830.00	692.00	775.61	83.61
G51	420416	000515	112.00	2236.00	2307.00	876.00	1300.18	424.18
G51	420418	000517	89.00	826.00	2254.00	824.00	869.49	45.49
G51	420446	000567	63.00	2312.00	2749.00	1283.00	1396.16	113.16
G51	420454	000593	72.00	1855.00	1756.00	680.00	1108.97	429.97
G51	420585	000844	102.00	839.00	2138.00	940.00	857.51	-82.49
G51	420595	000856	184.00	543.00	915.00	765.00	595.78	-169.22
G51	420597	000858	104.00	2603.00	3309.00	757.00	1516.55	759.55
G51	420598	000859	236.00	929.00	1575.00	948.00	823.37	-124.63
G51	420600	000861	369.00	1749.00	2029.00	871.00	1159.43	288.43
G51	420603	000865	110.00	1885.00	3084.00	1034.00	1307.85	273.85
G51	420637	000971	172.00	973.00	1115.00	1008.00	746.97	-261.03
G51	520037	100005	213.00	1498.00	739.00	1216.00	844.03	-371.97

NITROGEN OXIDE

			KEYMODE VALUE			COMPOSITE VALUES		
PFG	CAR NO	RUN NO	IDLE	LOW	HIGH	OBSERVED	CALC	DIFF
G51	520293	100561	84.00	1807.00	1339.00	969.00	998.83	29.83
G51	520338	100644	192.00	729.00	1019.00	836.00	667.04	-168.96
G51	520339	100645	691.00	1850.00	2775.00	1522.00	1382.63	-139.37
G51	520373	100802	61.00	405.00	143.00	144.00	403.97	259.97
G51	620267	000249	108.00	1158.00	1421.00	750.00	833.81	83.81
G51	620272	000142	330.00	512.00	1304.00	616.00	683.41	67.41
G51	620282	000161	116.00	1184.00	1715.00	879.00	890.35	11.35
G51	620305	000238	107.00	1819.00	2601.00	1279.00	1210.71	-68.29
G52	120023	001187	101.00	2733.00	2323.00	1472.00	1423.39	-48.61
G52	120052	001248	115.00	1589.00	2089.00	1032.00	1065.01	33.01
G52	120098	001309	126.00	2164.00	2621.00	1619.00	1316.02	-302.98
G52	120151	001370	118.00	2378.00	2494.00	1246.00	1354.33	108.33
G52	120201	001424	106.00	2249.00	3442.00	1005.00	1532.02	527.02
G52	120205	001436	94.00	3304.00	4914.00	2502.00	2000.57	-501.43
G52	120232	001473	208.00	2412.00	3146.00	1246.00	1489.74	243.74
G52	120290	001634	90.00	2311.00	1511.00	873.00	1170.63	297.63
G52	120308	001669	92.00	1219.00	1925.00	785.00	928.51	143.51
G52	120430	001792	88.00	718.00	1863.00	1489.00	775.73	-713.27
G52	120442	001772	55.00	748.00	938.00	1190.00	627.69	-562.31
G52	120457	001773	79.00	2160.00	3255.00	1197.00	1406.08	209.08
G52	120460	001793	137.00	614.00	1926.00	757.00	767.76	10.76
G52	120466	001778	92.00	1276.00	2123.00	1255.00	976.53	-278.47
G52	120467	001716	102.00	915.00	2219.00	1194.00	892.07	-301.93
G52	120468	001735	93.00	1438.00	2156.00	945.00	1027.95	82.95
G52	120530	001808	90.00	441.00	1370.00	685.00	618.39	-66.61
G52	220172	001387	81.00	1473.00	3114.00	844.00	1189.30	345.30
G52	220192	001418	61.00	870.00	2090.00	646.00	849.07	203.07
G52	220198	001476	65.00	1149.00	3157.00	829.00	1100.49	271.49
G52	220218	001570	85.00	699.00	651.00	871.00	574.55	-296.45
G52	220237	001594	113.00	358.00	1067.00	1140.00	551.43	-588.57
G52	220271	001667	76.00	394.00	1035.00	589.00	547.92	-41.08
G52	220277	001731	40.00	2607.00	3649.00	1297.00	1587.06	290.06
G52	220300	000844	122.00	706.00	1058.00	576.00	650.61	74.61
G52	220320	001810	63.00	1212.00	2270.00	524.00	975.36	451.36
G52	220342	001869	63.00	2077.00	4111.00	2125.00	1516.67	-608.33
G52	220346	000852	65.00	316.00	2320.00	705.00	730.14	25.14
G52	220350	001853	66.00	1460.00	2223.00	959.00	1038.71	79.71
G52	220351	001854	97.00	1594.00	1348.00	733.00	942.97	209.97
G52	220378	002054	48.00	2271.00	2990.00	1812.00	1387.68	-424.32
G52	320185	100470	120.00	2173.00	1783.00	775.00	1182.28	407.28
G52	320249	100447	108.00	2319.00	2184.00	915.00	1285.40	370.40
G52	320321	100575	302.00	1222.00	2596.00	933.00	1079.97	146.97
G52	320406	100392	127.00	2143.00	2163.00	1137.00	1236.58	99.58
G52	320421	101410	83.00	1646.00	1785.00	829.00	1024.53	195.53
G52	320427	101076	113.00	1077.00	2722.00	778.00	1021.46	243.46
G52	320428	101147	115.00	2640.00	3495.00	1574.00	1588.97	14.97
G52	320429	101171	110.00	1835.00	1977.00	841.00	1115.48	274.48
G52	320480	101465	93.00	2000.00	3183.00	919.00	1352.42	433.42
G52	320484	101683	397.00	412.00	2241.00	965.00	821.43	-143.57
G52	320487	101860	61.00	1960.00	3590.00	779.00	1399.20	620.20

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G52	320488	101859	53.00	1823.00	2303.00	637.00	1151.38	514.38
G52	320489	101877	52.00	949.00	429.00	353.00	601.97	248.97
G52	420129	000128	92.00	2145.00	2719.00	624.00	1318.39	694.39
G52	420468	000616	66.00	2331.00	2119.00	1258.00	1268.62	10.62
G52	420531	000704	119.00	457.00	677.00	907.00	518.07	-388.93
G52	420583	000842	75.00	1990.00	3507.00	1128.00	1397.58	269.58
G52	420584	000843	85.00	3801.00	1534.00	1387.00	1595.11	208.11
G52	420599	000860	103.00	2035.00	1736.00	911.00	1131.70	220.70
G52	420601	000862	104.00	799.00	1436.00	548.00	733.63	185.63
G52	420614	000890	384.00	3219.00	4084.00	2082.00	1909.99	-172.01
G52	420633	000920	106.00	3044.00	3683.00	1044.00	1731.55	687.55
G52	520031	100187	344.00	1324.00	1973.00	1399.00	1024.28	-374.72
G52	520063	100576	89.00	2129.00	2187.00	978.00	1227.69	249.69
G52	520069	100022	114.00	922.00	1853.00	731.00	837.91	106.91
G52	520073	100018	67.00	1227.00	1866.00	935.00	915.49	-19.51
G52	520075	100518	105.00	1791.00	1343.00	636.00	999.81	363.81
G52	520087	100078	105.00	1888.00	1833.00	831.00	1106.15	275.15
G52	520090	100525	104.00	1698.00	2627.00	1160.00	1179.94	19.94
G52	520105	100210	110.00	1702.00	2398.00	1488.00	1145.59	-342.41
G52	520154	100108	105.00	1937.00	2371.00	937.00	1206.64	269.64
G52	520164	100569	91.00	1045.00	2686.00	764.00	1001.51	237.51
G52	520165	100482	123.00	2246.00	2507.00	1098.00	1320.20	222.20
G52	520201	100303	128.00	1613.00	1685.00	975.00	1009.78	34.78
G52	520231	100607	72.00	1828.00	1392.00	832.00	1010.54	178.54
G52	520247	100464	204.00	3186.00	3833.00	1311.00	1818.59	507.59
G52	520274	100537	113.00	1155.00	1872.00	682.00	906.72	224.72
G52	520292	100604	162.00	2710.00	893.00	1718.00	1200.79	-517.21
G52	520322	100625	136.00	1424.00	1556.00	702.00	937.34	235.34
G52	520324	100619	124.00	906.00	2054.00	777.00	868.05	91.05
G52	520327	100618	133.00	1783.00	2004.00	1184.00	1110.43	-73.57
G52	520343	100654	148.00	1348.00	2343.00	1062.00	1045.29	-16.71
G52	620032	000013	108.00	2486.00	3383.00	695.00	1525.71	830.71
G52	620110	000120	106.00	1501.00	2821.00	775.00	1155.84	380.84
G52	620111	000103	98.00	2791.00	4465.00	985.00	1783.94	798.94
G52	620112	000130	75.00	1967.00	1670.00	1148.00	1097.15	-50.85
G52	620268	000316	145.00	2656.00	4502.00	1425.00	1762.55	337.55
G52	620269	000165	125.00	1559.00	2732.00	865.00	1162.34	297.34
G52	620280	000050	88.00	2110.00	2137.00	1051.00	1214.02	163.02
G52	620281	000230	94.00	1126.00	1996.00	939.00	914.07	-24.93
G52	620293	000225	82.00	513.00	2146.00	693.00	761.85	68.85
G52	620304	000247	121.00	1683.00	2989.00	1200.00	1237.90	37.90
G52	620307	000048	121.00	2751.00	2205.00	1618.00	1414.12	-203.88
G52	620309	000146	116.00	2001.00	2638.00	762.00	1270.29	508.29
G52	620316	000208	142.00	1640.00	1728.00	1226.00	1027.59	-198.41
G52	620347	000243	122.00	1235.00	1548.00	784.00	879.29	95.29
G53	120040	001221	84.00	1761.00	2531.00	1046.00	1177.70	131.70
G53	120042	001227	137.00	2914.00	2023.00	974.00	1434.69	460.69
G53	120050	001246	124.00	2187.00	2768.00	1054.00	1344.32	290.32
G53	120055	001252	72.00	1452.00	2968.00	1123.00	1157.77	34.77
G53	120058	001255	118.00	1977.00	3443.00	1168.00	1393.54	225.54

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	120089	001295	75.00	2044.00	3097.00	1383.00	1346.87	-36.13
G53	120101	001311	162.00	3143.00	2675.00	1132.00	1610.28	478.28
G53	120103	001313	109.00	2885.00	2545.00	963.00	1504.03	541.03
G53	120131	001343	100.00	3221.00	3001.00	1803.00	1670.50	-132.50
G53	120141	001354	84.00	2252.00	3705.00	1449.00	1505.73	56.73
G53	120160	001379	296.00	1385.00	1737.00	1077.00	992.46	-84.54
G53	120164	001384	148.00	2410.00	2982.00	1238.00	1448.89	210.89
G53	120189	001412	424.00	2092.00	2323.00	1253.00	1316.61	63.61
G53	120210	001443	124.00	2720.00	2768.00	1373.00	1496.67	123.67
G53	120212	001446	204.00	2911.00	3437.00	1510.00	1676.96	166.96
G53	120305	001666	140.00	973.00	1623.00	834.00	821.34	-12.66
G53	120312	001675	182.00	1846.00	2325.00	980.00	1191.28	211.28
G53	120321	001685	104.00	2193.00	2550.00	1157.00	1307.72	150.72
G53	220001	000924	196.00	1712.00	3026.00	1272.00	1269.42	-2.58
G53	220028	001056	75.00	1454.00	2273.00	785.00	1047.15	262.15
G53	220030	001058	74.00	1161.00	2819.00	1120.00	1051.84	-68.16
G53	220037	001072	103.00	2093.00	2894.00	1075.00	1334.54	259.54
G53	220042	001084	222.00	1833.00	2725.00	1077.00	1261.25	184.25
G53	220043	001085	93.00	1882.00	2577.00	952.00	1221.45	269.45
G53	220044	001086	308.00	1496.00	2716.00	1046.00	1184.27	138.27
G53	220045	001087	80.00	1395.00	1980.00	949.00	985.28	36.28
G53	220065	001119	66.00	542.00	820.00	691.00	552.90	-138.10
G53	220067	001121	308.00	1540.00	2496.00	1291.00	1161.31	-129.69
G53	220076	001171	123.00	1500.00	2681.00	1149.00	1136.96	-12.04
G53	220133	001315	61.00	1629.00	3098.00	1281.00	1230.90	-50.10
G53	220175	001395	57.00	1284.00	3063.00	731.00	1122.01	391.01
G53	220179	001413	85.00	1330.00	2442.00	998.00	1041.55	43.55
G53	220210	001556	73.00	1382.00	2745.00	1174.00	1102.28	-71.72
G53	220321	002100	72.00	1304.00	1894.00	538.00	942.96	404.96
G53	220331	000814	37.00	835.00	1995.00	513.00	818.31	305.31
G53	220332	002091	56.00	727.00	2134.00	1060.00	814.50	-245.50
G53	220343	001892	49.00	978.00	1241.00	789.00	740.21	-48.79
G53	220361	001879	57.00	687.00	1327.00	808.00	673.50	-134.50
G53	220380	002080	78.00	778.00	1972.00	929.00	807.96	-121.04
G53	220381	002064	33.00	1867.00	2519.00	722.00	1193.98	471.98
G53	320043	100196	178.00	3172.00	4101.00	1322.00	1851.75	529.75
G53	320150	100277	358.00	2358.00	2880.00	1181.00	1466.33	285.33
G53	320156	100336	98.00	2400.00	2972.00	1321.00	1432.88	111.88
G53	320182	100368	131.00	3246.00	3686.00	1611.00	1795.02	184.02
G53	320188	100370	166.00	2728.00	3569.00	1361.00	1637.60	276.60
G53	320193	100391	232.00	959.00	2424.00	1098.00	967.61	-130.39
G53	320231	101220	94.00	2579.00	4049.00	914.00	1656.02	742.02
G53	320286	100493	129.00	2216.00	3244.00	1376.00	1431.73	55.73
G53	320288	100496	141.00	2338.00	2397.00	856.00	1332.71	476.71
G53	320289	100520	119.00	3578.00	4202.00	1475.00	1969.33	494.33
G53	320291	100549	129.00	3664.00	3268.00	1689.00	1845.64	156.64
G53	320293	100534	567.00	1439.00	3412.00	1204.00	1340.09	136.09
G53	320330	100626	107.00	3144.00	3723.00	1661.00	1766.54	105.54
G53	320374	100721	412.00	3464.00	4266.00	2113.00	2015.14	-97.86
G53	320402	100824	118.00	2364.00	3739.00	1304.00	1550.78	246.78

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	320449	101623	42.00	2280.00	3296.00	2105.00	1438.10	-666.90
G53	320450	101436	50.00	1470.00	2707.00	846.00	1115.76	269.76
G53	320455	101513	106.00	1658.00	3598.00	767.00	1325.39	558.39
G53	320456	101591	32.00	1559.00	2813.00	1772.00	1153.86	-618.14
G53	320496	104116	242.00	1641.00	2610.00	1718.00	1192.99	-525.01
G53	320498	104118	179.00	1392.00	2612.00	1094.00	1108.22	14.22
G53	320499	104124	156.00	2929.00	3997.00	1428.00	1761.10	333.10
G53	320500	104126	172.00	3345.00	4054.00	1607.00	1891.78	284.78
G53	420008	000045	184.00	2994.00	3375.00	1505.00	1685.86	180.86
G53	420010	000467	81.00	2256.00	3310.00	994.00	1442.58	448.58
G53	420042	000037	211.00	2933.00	3072.00	1415.00	1626.06	211.06
G53	420046	000043	163.00	3152.00	4074.00	1208.00	1838.27	630.27
G53	420150	000150	56.00	2263.00	2321.00	881.00	1279.57	398.57
G53	420181	000181	73.00	1535.00	1201.00	492.00	897.05	405.05
G53	420263	000263	197.00	2925.00	3188.00	1115.00	1639.22	524.22
G53	420307	000326	370.00	3246.00	3167.00	1476.00	1766.77	290.77
G53	420319	000343	84.00	1007.00	1874.00	473.00	850.37	377.37
G53	420320	000344	129.00	1922.00	2702.00	924.00	1261.23	337.23
G53	420365	000431	197.00	3330.00	3771.00	1780.00	1847.76	67.76
G53	420401	000500	52.00	1054.00	1256.00	383.00	764.84	381.84
G53	420405	000504	105.00	2706.00	2743.00	1069.00	1484.29	415.29
G53	420407	000506	84.00	2821.00	3374.00	1293.00	1613.57	320.57
G53	420417	000516	54.00	1994.00	3260.00	816.00	1354.09	538.09
G53	420512	000670	71.00	2779.00	3406.00	1012.00	1603.82	591.82
G53	420547	000752	81.00	2136.00	3458.00	1130.00	1416.32	286.32
G53	420561	000778	92.00	2030.00	3416.00	1149.00	1398.19	249.19
G53	420647	201010	91.00	2182.00	2387.00	1953.00	1275.35	-677.65
G53	420648	001011	65.00	469.00	1135.00	316.00	582.71	266.71
G53	420649	001013	84.00	951.00	1574.00	768.00	794.26	26.26
G53	420650	001015	112.00	1992.00	1330.00	1069.00	1152.84	83.84
G53	520027	100208	142.00	1857.00	2392.00	1486.00	1195.93	-290.07
G53	520035	100229	162.00	1671.00	1933.00	1174.00	1057.89	-116.11
G53	520036	100116	100.00	2107.00	2415.00	903.00	1260.70	357.70
G53	520078	100043	92.00	1616.00	1334.00	893.00	1042.38	149.38
G53	520081	100033	87.00	1355.00	2068.00	1199.00	988.89	-210.11
G53	520134	100102	89.00	2089.00	2137.00	967.00	1208.31	241.31
G53	520143	100179	68.00	1839.00	2167.00	1412.00	1154.48	-257.52
G53	520197	100454	163.00	2414.00	2609.00	1452.00	1393.45	-58.55
G53	520199	100230	133.00	2390.00	1807.00	1267.00	1250.60	-16.40
G53	520219	100480	124.00	1545.00	1118.00	786.00	898.32	112.32
G53	520242	100553	143.00	1707.00	2405.00	1012.00	1155.77	143.77
G53	520284	100702	48.00	1710.00	2190.00	790.00	1100.03	310.03
G53	520294	100578	108.00	1921.00	2026.00	1188.00	1147.26	-40.74
G53	520295	100568	142.00	2236.00	1933.00	1162.00	1229.36	67.36
G53	520344	100653	129.00	2247.00	2014.00	1138.00	1242.51	104.51
G53	520346	100657	55.00	1226.00	1316.00	1019.00	823.90	-195.10
G53	520350	100669	108.00	1659.00	2005.00	974.00	1069.69	95.69
G53	620003	000006	149.00	2625.00	3189.00	1302.00	1543.33	241.33
G53	620004	000001	130.00	2850.00	3325.00	1358.00	1624.54	266.54
G53	620105	000124	71.00	2011.00	3223.00	1213.00	1356.88	143.88

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G53	620108	000073	163.00	2327.00	2314.00	1072.00	1321.32	249.32
G53	620117	000254	75.00	2582.00	3238.00	1419.00	1521.92	102.92
G53	620118	000211	70.00	1486.00	2279.00	897.00	1056.02	159.02
G53	620119	000251	107.00	1977.00	2054.00	1108.00	1167.40	59.40
G53	620120	000236	94.00	1865.00	1883.00	705.00	1105.15	400.15
G53	620198	000128	90.00	1408.00	2250.00	1015.00	1033.89	18.89
G53	620210	000038	142.00	2326.00	3686.00	1500.00	1537.04	37.04
G53	620230	000065	120.00	2322.00	2933.00	1152.00	1409.60	257.60
G53	620283	000308	96.00	1463.00	2926.00	1355.00	1159.67	-195.33
G53	620303	000245	98.00	1738.00	3205.00	1193.00	1282.92	89.92
G53	620317	000221	386.00	2089.00	3112.00	1119.00	1433.99	314.99
G53	620348	000113	80.00	1805.00	2877.00	1107.00	1244.93	137.93
G53	620427	000328	98.00	2397.00	2822.00	1423.00	1407.88	-15.12
G53	620433	000340	83.00	2740.00	3090.00	1121.00	1544.68	423.68
G55	120034	001209	90.00	1394.00	4085.00	906.00	1325.32	419.32
G55	120043	001229	117.00	2905.00	3382.00	1666.00	1742.87	76.87
G55	120054	001251	70.00	2759.00	3960.00	1798.00	1687.11	-110.89
G55	120062	001261	119.00	3293.00	3946.00	1383.00	1847.41	464.41
G55	120107	001317	132.00	2301.00	3191.00	961.00	1447.97	486.97
G55	120108	001318	107.00	2875.00	3901.00	1093.00	1719.02	626.02
G55	120125	001336	121.00	3952.00	4449.00	1798.00	2115.46	317.46
G55	120175	001399	72.00	2665.00	3231.00	1061.00	1543.60	482.60
G55	120208	001439	108.00	3601.00	4349.00	1904.00	1996.96	92.96
G55	120231	001471	124.00	2890.00	3486.00	1053.00	1660.39	607.39
G55	120262	001568	116.00	3082.00	3301.00	990.00	1779.72	789.72
G55	120287	001627	197.00	3679.00	4322.00	1630.00	2035.29	405.29
G55	120291	001635	96.00	2351.00	3510.00	1050.00	1505.15	455.15
G55	120292	001639	188.00	1866.00	2701.00	574.00	1258.86	684.86
G55	120302	001661	48.00	86.00	761.00	214.00	410.11	196.11
G55	120303	001662	99.00	3246.00	3683.00	1326.00	1787.13	461.13
G55	220014	000953	79.00	2997.00	4139.00	1153.00	1785.40	632.40
G55	220090	001204	163.00	3787.00	4281.00	1636.00	2050.28	414.28
G55	220097	001212	324.00	3415.00	4221.00	1608.00	1973.66	365.66
G55	220099	001214	80.00	3523.00	3909.00	1375.00	1897.28	522.28
G55	220141	001331	180.00	3112.00	4278.00	1725.00	1863.71	138.71
G55	220158	001359	72.00	1358.00	3417.00	1324.00	1203.43	-120.57
G55	220163	001366	46.00	726.00	2090.00	842.00	790.34	-51.66
G55	220169	001379	99.00	1454.00	1332.00	580.00	901.22	321.22
G55	220174	001390	75.00	2826.00	3676.00	1479.00	1657.91	181.91
G55	220186	001456	99.00	2764.00	3866.00	1319.00	1680.10	361.10
G55	220197	001488	51.00	1330.00	3095.00	838.00	1137.19	299.19
G55	220220	001572	77.00	1921.00	3098.00	1299.00	1312.66	13.66
G55	220224	001577	89.00	2902.00	3918.00	1264.00	1725.24	461.24
G55	220239	001596	80.00	1330.00	2106.00	1367.00	986.30	-380.70
G55	220242	001599	71.00	2042.00	3291.00	882.00	1376.61	494.61
G55	220265	001641	101.00	2106.00	3475.00	1452.00	1431.29	-20.71
G55	220272	001669	101.00	1271.00	2137.00	989.00	979.45	-9.55
G55	220297	001795	60.00	993.00	2110.00	1015.00	886.89	-128.11
G55	220371	001887	81.00	1567.00	3248.00	689.00	1237.49	548.49
G55	320021	100057	292.00	1252.00	2091.00	1561.00	1010.86	-550.14

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G55	320033	100090	109.00	3897.00	4262.00	1821.00	2067.00	246.00
G55	320041	100231	141.00	3864.00	4266.00	1828.00	2065.71	237.71
G55	320050	100124	134.00	3278.00	4264.00	2572.00	1897.82	-674.18
G55	320081	100232	159.00	2400.00	3333.00	1109.00	1505.11	396.11
G55	320133	100110	110.00	3293.00	4200.00	2285.00	1886.22	-398.78
G55	320157	100348	309.00	3749.00	4271.00	2020.00.	2072.82	52.82
G55	320168	100503	168.00	3401.00	4102.00	1718.00	1928.93	210.93
G55	320192	100375	200.00	843.00	1532.00	938.00	783.76	-154.24
G55	320202	100390	182.00	3319.00	4269.00	1851.00	1921.35	70.35
G55	320220	100535	83.00	2793.00	4059.00	1638.00	1715.68	77.68
G55	320303	100517	94.00	2173.00	3287.00	1287.00	1418.38	131.38
G55	320316	100589	99.00	2717.00	3388.00	1196.00	1589.84	393.84
G55	320317	100581	105.00	2842.00	3852.00	1560.00	1701.32	141.32
G55	320328	100618	213.00	3317.00	3680.00	1222.00	1833.13	611.13
G55	320329	100608	93.00	2941.00	3545.00	1202.00	1677.16	475.16
G55	420057	000058	56.00	3021.00	4069.00	1153.00	1775.61	622.61
G55	420337	000381	150.00	2226.00	3529.00	966.00	1485.30	519.30
G55	420472	000621	76.00	2535.00	2920.00	627.00	1457.65	830.65
G55	420473	000622	67.00	3036.00	3734.00	1380.00	1728.47	348.47
G55	420475	000624	72.00	3980.00	4107.00	1209.00	2056.99	847.99
G55	420491	000638	45.00	2771.00	3746.00	1270.00	1650.27	380.27
G55	420557	000763	54.00	473.00	3339.00	343.00	936.09	593.09
G55	420586	000847	103.00	3146.00	3394.00	771.00	1711.61	940.61
G55	420604	000866	90.00	2934.00	4146.00	1482.00	1771.23	289.23
G55	420606	000868	114.00	1071.00	1847.00	1313.00	879.14	-433.86
G55	420608	000870	142.00	1390.00	1957.00	519.00	993.66	474.66
G55	420609	000871	135.00	3546.00	3710.00	1526.00	1884.76	358.76
G55	420622	000903	152.00	2738.00	3336.00	1031.00	1599.68	568.68
G55	420638	000972	129.00	2870.00	4146.00	1910.00	1762.13	-147.87
G55	520007	100235	136.00	2845.00	3632.00	1458.00	1673.93	215.93
G55	520012	100125	258.00	2400.00	2401.00	1387.00	1377.98	-9.02
G55	520013	100064	143.00	2119.00	2329.00	887.00	1260.21	373.21
G55	520033	100498	113.00	2188.00	2116.00	1056.00	1238.52	182.52
G55	520056	100281	81.00	2639.00	2830.00	1087.00	1473.76	386.76
G55	520072	100103	138.00	2388.00	2927.00	1146.00	1431.49	285.49
G55	520089	100237	168.00	3752.00	3557.00	1705.00	1926.10	221.10
G55	520131	100555	111.00	1975.00	2347.00	1040.00	1214.92	174.92
G55	520145	100111	112.00	2723.00	3508.00	1303.00	1613.87	310.87
G55	520172	100335	136.00	2175.00	2990.00	1497.00	1380.85	-116.15
G55	520192	100249	81.00	184.00	1462.00	379.00	558.34	179.34
G55	520200	100444	87.00	1612.00	2941.00	1104.00	1202.20	98.20
G55	520208	100290	55.00	968.00	1421.00	596.00	767.74	171.74
G55	520217	100411	105.00	994.00	2351.00	751.00	936.38	185.38
G55	520261	100593	130.00	1756.00	2201.00	707.00	1133.80	426.80
G55	620006	000011	104.00	2255.00	3809.00	848.00	1527.95	679.95
G55	620216	000091	94.00	952.00	2120.00	631.00	884.76	253.76
G55	620306	000077	101.00	1866.00	2640.00	888.00	1228.91	340.91
G55	620311	000135	162.00	3451.00	4141.00	1511.00	1933.49	422.49
G55	620314	000107	132.00	3839.00	4831.00	1324.00	2147.50	823.50
G55	620329	000054	81.00	1201.00	3253.00	824.00	1134.65	310.65

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
GSS	620332	000148	187.00	2764.00	3471.00	1336.00	1636.88	300.88
GSS	620336	000070	110.00	1988.00	2766.00	914.00	1285.82	371.82
GSS	620339	000085	123.00	2139.00	2772.00	1346.00	1332.56	-13.44
GSS	620344	000178	89.00	2071.00	2411.00	1133.00	1247.32	114.32
GSS	620351	000282	808.00	2089.00	3266.00	1047.00	1556.42	509.42
GSS	620428	000336	170.00	1318.00	2256.00	1277.00	1027.88	-249.12
GSS	620429	000198	99.00	3077.00	4004.00	1588.00	1790.95	202.95
GSS	620438	000339	88.00	3032.00	3740.00	1303.00	1733.16	430.16
GS6	420639	000973	99.00	1746.00	3549.00	1488.00	1340.80	-147.20
GS6	520349	100704	103.00	2455.00	3002.00	1084.00	1454.44	370.44
GS6	620263	000129	76.00	381.00	1985.00	304.00	697.17	393.17
GS7	120002	001134	114.00	2888.00	3382.00	1222.00	1640.77	418.77
GS7	120003	001135	269.00	1750.00	3027.00	1550.00	1297.23	-252.77
GS7	120004	001137	142.00	1937.00	3166.00	1081.00	1343.18	262.18
GS7	120021	001183	83.00	2514.00	2902.00	1151.00	1450.42	299.42
GS7	120022	001185	308.00	3126.00	3626.00	1766.00	1792.34	26.34
GS7	120025	001192	117.00	1082.00	1748.00	1876.00	867.01	-1008.99
GS7	120030	001200	104.00	2215.00	3527.00	1145.00	1471.22	326.22
GS7	120031	001201	147.00	3536.00	4168.00	1658.00	1958.44	300.44
GS7	120036	001215	122.00	3844.00	3672.00	1386.00	1960.03	574.03
GS7	120038	001217	45.00	3128.00	3960.00	1414.00	1785.82	371.82
GS7	120039	001226	137.00	3281.00	3882.00	1428.00	1837.87	409.87
GS7	120049	001242	145.00	2593.00	3346.00	1522.00	1558.61	36.61
GS7	120074	001277	191.00	2421.00	2817.00	1326.00	1434.59	108.59
GS7	120076	001279	139.00	2719.00	3784.00	1660.00	1663.41	3.41
GS7	120093	001309	132.00	1651.00	2896.00	962.00	1216.41	254.41
GS7	120113	001330	204.00	1389.00	2539.00	803.00	1101.41	298.41
GS7	120130	001341	99.00	3307.00	3602.00	1500.00	1791.37	291.37
GS7	120133	001346	148.00	3186.00	3806.00	1470.00	1801.28	331.28
GS7	120162	001381	151.00	3226.00	3451.00	1803.00	1756.16	-46.84
GS7	120166	001386	128.00	2520.00	2887.00	1345.00	1460.12	115.12
GS7	120207	001438	430.00	2163.00	1403.00	1057.00	1190.01	133.01
GS7	120215	001451	110.00	1690.00	2027.00	1456.00	1227.35	-228.65
GS7	120230	001469	114.00	2508.00	2739.00	1197.00	1429.66	232.66
GS7	120234	001476	115.00	872.00	1665.00	781.00	793.72	12.72
GS7	120243	001548	179.00	2475.00	3371.00	1218.00	1633.68	415.68
GS7	220018	000944	101.00	1998.00	2641.00	899.00	1266.45	367.45
GS7	220019	000945	94.00	1687.00	2034.00	1116.00	1079.05	-36.95
GS7	220029	001057	90.00	1926.00	2780.00	891.00	1265.89	374.89
GS7	220032	001063	104.00	2163.00	3375.00	1352.00	1432.03	80.03
GS7	220034	001067	64.00	1868.00	3139.00	1087.00	1301.24	214.24
GS7	220038	001073	126.00	1371.00	2640.00	1616.00	1094.52	-521.48
GS7	220051	001093	93.00	1917.00	2656.00	1124.00	1236.21	112.21
GS7	220057	001101	82.00	2043.00	2724.00	818.00	1289.86	471.86
GS7	220063	001113	115.00	1795.00	3261.00	1276.00	1286.53	10.53
GS7	220064	001118	93.00	2364.00	3121.00	1111.00	1445.51	334.51
GS7	220086	001200	86.00	2537.00	3430.00	1243.00	1542.63	299.63
GS7	220103	001215	52.00	2806.00	2602.00	1295.00	1477.64	182.64
GS7	220137	001324	66.00	1988.00	2336.00	907.00	1206.42	299.42
GS7	220157	001359	84.00	2450.00	4168.00	1511.00	1636.33	125.33

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G57	220184	001429	101.00	1554.00	2533.00	771.00	1123.33	352.33
G57	220240	001597	102.00	1746.00	2443.00	685.00	1163.45	478.45
G57	220247	001604	38.00	2090.00	2831.00	1064.00	1308.51	244.51
G57	220250	001607	72.00	1809.00	2811.00	796.00	1233.59	437.59
G57	220258	001623	28.00	2060.00	2548.00	826.00	1252.15	426.15
G57	220259	001625	93.00	1295.00	2358.00	730.00	1019.97	289.97
G57	220261	001628	100.00	1126.00	2803.00	1430.00	1045.37	-384.63
G57	220280	001747	107.00	1789.00	2375.00	900.00	1165.83	265.83
G57	220339	002010	125.00	2259.00	2328.00	994.00	1295.53	301.53
G57	220357	001888	70.00	1526.00	2768.00	1100.00	1146.06	46.06
G57	220367	001878	76.00	1535.00	2462.00	918.00	1100.74	182.74
G57	320005	100022	126.00	2036.00	3223.00	988.00	1376.69	388.69
G57	320015	100050	315.00	1802.00	3634.00	1665.00	1420.32	-244.68
G57	320030	100087	182.00	2221.00	3478.00	1658.00	1483.08	-174.92
G57	320031	100088	123.00	2318.00	3333.00	1194.00	1473.56	279.56
G57	320036	100153	169.00	2918.00	3972.00	1436.00	1756.97	320.97
G57	320046	100129	65.00	894.00	2986.00	820.00	1001.03	181.03
G57	320093	100185	79.00	1911.00	3909.00	1314.00	1440.85	126.85
G57	320110	100218	108.00	3071.00	3765.00	1175.00	1752.86	577.86
G57	320113	100263	124.00	2391.00	3504.00	1057.00	1521.99	464.99
G57	320116	100261	187.00	2299.00	3135.00	1214.00	1451.11	237.11
G57	320177	100394	122.00	2944.00	3544.00	1782.00	1684.56	-97.44
G57	320180	100365	258.00	1474.00	3102.00	1151.00	1228.60	77.60
G57	320194	100378	242.00	1765.00	3540.00	1203.00	1377.82	174.82
G57	320195	100377	289.00	792.00	1574.00	1519.00	796.67	-722.33
G57	320196	100373	123.00	1142.00	3571.00	1345.00	1178.85	-166.15
G57	320197	100372	447.00	2408.00	3106.00	1797.00	1537.47	-259.53
G57	320198	100371	110.00	1234.00	3847.00	1437.00	1246.33	-190.67
G57	320199	100386	235.00	1668.00	3322.00	1194.00	1313.63	119.63
G57	320200	100389	227.00	1522.00	3700.00	1221.00	1363.49	142.49
G57	320226	100595	74.00	889.00	3014.00	996.00	1006.21	10.21
G57	320326	100588	181.00	2912.00	3655.00	1299.00	1707.02	408.02
G57	320338	100598	80.00	3169.00	3705.00	1467.00	1764.47	297.47
G57	320345	100611	279.00	2086.00	2758.00	1208.00	1351.39	143.39
G57	320376	100722	94.00	2346.00	3036.00	861.00	1426.96	565.96
G57	320501	104123	213.00	2247.00	3578.00	1140.00	1513.71	373.71
G57	420004	000004	374.00	2117.00	2967.00	1120.00	1415.80	295.80
G57	420005	000005	101.00	2352.00	2349.00	969.00	1319.69	350.69
G57	420006	000006	201.00	2673.00	2661.00	997.00	1483.75	486.95
G57	420009	000044	98.00	2423.00	2028.00	917.00	1287.43	370.43
G57	420013	000021	171.00	3181.00	2793.00	1329.00	1642.11	313.11
G57	420020	000011	267.00	2744.00	3098.00	1174.00	1589.68	415.68
G57	420024	000008	128.00	2386.00	2470.00	893.00	1355.04	462.04
G57	420026	000025	91.00	2876.00	2057.00	779.00	1418.75	639.75
G57	420028	000017	122.00	2722.00	3398.00	1138.00	1598.19	460.19
G57	420029	000019	172.00	2757.00	2931.00	1165.00	1544.49	379.49
G57	420063	000062	95.00	2668.00	2736.00	861.00	1470.08	609.08
G57	420090	000096	80.00	2517.00	2669.00	779.00	1316.48	537.48
G57	420134	000133	120.00	2506.00	2816.00	1279.00	1442.87	163.87
G57	420174	000174	147.00	2358.00	3921.00	836.00	1585.09	749.09

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G57	420179	000179	60.00	1879.00	3089.00	734.00	1295.22	561.22
G57	420243	000243	111.00	2424.00	2158.00	883.00	1311.64	428.64
G57	420251	000251	69.00	2212.00	2593.00	1033.00	1311.92	278.92
G57	420257	000257	100.00	2454.00	3132.00	924.00	1474.39	550.39
G57	420260	000260	92.00	1693.00	2858.00	752.00	1212.93	460.93
G57	420321	000345	133.00	2688.00	2827.00	870.00	1499.19	629.19
G57	420496	000654	84.00	2061.00	2675.00	417.00	1277.78	860.78
G57	420641	000978	94.00	816.00	1319.00	552.00	717.30	165.30
G57	420644	000981	106.00	526.00	1284.00	657.00	632.32	-24.68
G57	520006	100010	73.00	1915.00	1674.00	917.00	1080.80	163.80
G57	520029	100177	191.00	1803.00	1852.00	1439.00	1105.04	-333.96
G57	520030	100126	132.00	2011.00	3042.00	1319.00	1341.86	22.86
G57	520034	100266	99.00	1190.00	2229.00	937.00	970.86	33.86
G57	520060	100512	235.00	2775.00	2584.00	1406.00	1508.31	102.31
G57	520065	100071	217.00	2213.00	3540.00	1480.00	1498.90	18.90
G57	520077	100055	194.00	1446.00	1933.00	857.00	1017.68	160.68
G57	520099	100117	96.00	3096.00	3149.00	1267.00	1658.00	391.00
G57	520102	100058	105.00	1820.00	2196.00	906.00	1143.72	237.72
G57	520108	100137	118.00	2204.00	2386.00	1053.00	1287.67	234.67
G57	520111	100062	272.00	660.00	1488.00	485.00	741.52	256.52
G57	520122	100060	186.00	1932.00	2176.00	994.00	1192.57	198.57
G57	520123	100059	106.00	1577.00	1663.00	836.00	990.95	154.95
G57	520148	100153	119.00	1590.00	2266.00	1138.00	1094.71	-43.29
G57	520179	100219	147.00	1168.00	2612.00	1077.00	1037.39	-39.61
G57	520202	100488	113.00	2012.00	2118.00	1114.00	1189.00	75.00
G57	520205	100484	217.00	773.00	1181.00	860.00	711.37	-148.63
G57	520244	100515	112.00	917.00	1809.00	613.00	842.02	229.02
G57	520290	100553	91.00	1461.00	2503.00	1009.00	1089.86	80.86
G57	520296	100571	89.00	960.00	2153.00	894.00	891.18	-2.82
G57	520352	100674	112.00	2378.00	1701.00	748.00	1225.28	477.28
G57	620010	000018	133.00	2027.00	3033.00	1396.00	1354.83	-41.17
G57	620102	000053	123.00	1662.00	2588.00	1242.00	1167.86	-74.14
G57	620104	000060	168.00	2063.00	3038.00	1054.00	1364.27	310.27
G57	620106	000306	126.00	1001.00	2791.00	935.00	1016.04	81.04
G57	620109	000058	95.00	2660.00	2679.00	1131.00	1458.64	327.64
G57	620121	000186	82.00	2350.00	2657.00	1451.00	1164.31	-286.69
G57	620123	000324	179.00	2760.00	3310.00	1322.00	1610.24	288.24
G57	620124	000287	227.00	1032.00	1390.00	548.00	820.67	272.67
G57	620126	000294	115.00	1406.00	2473.00	979.00	1075.57	96.57
G57	620128	000317	154.00	1900.00	2592.00	830.00	1243.07	413.07
G57	620129	000140	101.00	1548.00	3310.00	1011.00	1246.72	235.72
G57	620130	000312	119.00	2035.00	3036.00	1025.00	1361.67	336.67
G57	620131	000305	113.00	2151.00	3286.00	931.00	1416.95	485.95
G57	620224	000268	124.00	1721.00	2733.00	1032.00	1208.71	176.71
G57	620247	000307	232.00	2201.00	3403.00	1146.00	1477.48	331.48
G57	620248	000167	74.00	2908.00	4099.00	1498.00	1752.60	254.60
G57	620251	000037	281.00	2485.00	3632.00	1569.00	1605.54	36.54
G57	620254	000276	98.00	1420.00	1814.00	702.00	968.95	266.95
G57	620345	000139	230.00	2028.00	2759.00	889.00	1323.79	434.79
G57	620419	000279	268.00	3029.00	3153.00	1457.00	1679.47	222.47

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G59	120001	001130	84.00	2867.00	2727.00	1219.00	1523.01	304.01
G59	120046	001236	93.00	2944.00	3014.00	1397.00	1592.53	195.53
G59	120048	001241	116.00	3162.00	2855.00	1422.00	1633.99	211.99
G59	120080	001283	131.00	2961.00	3303.00	1305.00	1652.66	347.66
G59	120163	001383	184.00	1259.00	2170.00	1109.00	1000.57	-108.43
G59	120227	001466	150.00	1275.00	2004.00	972.00	970.51	-1.49
G59	120327	001691	86.00	2466.00	2946.00	1303.00	1444.61	141.61
G59	320004	100016	111.00	1314.00	2347.00	977.00	1027.74	50.74
G59	320085	100220	180.00	768.00	1474.00	1374.00	740.51	-633.49
G59	320207	100393	109.00	1967.00	2855.00	1022.00	1293.97	271.97
G59	320274	101556	144.00	1782.00	2392.00	1198.00	1175.15	-22.85
G59	320324	100614	139.00	2256.00	2628.00	953.00	1346.21	393.21
G59	320441	101124	50.00	2409.00	2684.00	1025.00	1377.96	352.96
G59	320443	101555	63.00	1953.00	2489.00	774.00	1220.45	446.45
G59	420387	000484	201.00	2947.00	2490.00	1055.00	1534.02	479.02
G59	420400	000499	95.00	2575.00	3407.00	1069.00	1551.77	482.77
G59	420426	000525	82.00	2887.00	3367.00	927.00	1630.67	703.67
G59	420442	000563	99.00	2796.00	3189.00	845.00	1580.18	735.18
G59	420474	000623	79.00	2980.00	3296.00	1179.00	1644.88	465.88
G59	420505	000663	241.00	2888.00	2812.00	1199.00	1578.40	379.40
G59	420524	000697	101.00	2661.00	2883.00	1127.00	1493.15	366.15
G59	520093	100086	301.00	1818.00	1334.00	839.00	1051.35	212.35
G59	520094	100066	121.00	1605.00	1330.00	716.00	948.74	232.74
G59	520115	100554	360.00	2049.00	1979.00	1023.00	1234.25	211.25
G59	520187	100333	79.00	1756.00	1505.00	741.00	1009.96	268.96
G59	520257	100592	157.00	1840.00	1696.00	875.00	1082.54	207.54
G59	520271	100443	130.00	2344.00	1778.00	975.00	1232.21	257.21
G59	520288	100552	119.00	946.00	1402.00	769.00	805.45	37.45
G59	520306	100598	204.00	2072.00	1611.00	1005.00	1145.43	140.43
G59	620103	000055	155.00	1607.00	2763.00	1062.00	1187.86	125.86
G59	620290	000169	84.00	1942.00	2882.00	1312.00	1285.46	-26.54
G59	620310	000323	136.00	2103.00	2719.00	1017.00	1342.32	325.32
G59	620315	000222	210.00	2843.00	2536.00	1447.00	1525.41	78.41
G59	620329	000331	144.00	2173.00	2432.00	1232.00	1308.06	76.06
G59	620336	000075	108.00	2031.00	2396.00	1200.00	1326.51	126.51
G60	120105	001315	86.00	1412.00	2798.00	1037.00	1122.31	85.31
G60	120192	001415	86.00	2643.00	3104.00	1163.00	1520.16	357.16
G60	120229	001468	88.00	1803.00	2443.00	783.00	1240.74	457.74
G60	220318	000836	68.00	1262.00	2443.00	466.00	1018.52	552.52
G60	220352	001945	48.00	694.00	1567.00	382.00	712.03	330.03
G60	220365	001700	73.00	634.00	933.00	854.00	598.48	-255.52
G60	320083	100287	92.00	1484.00	2660.00	623.00	1155.49	532.49
G60	320432	100951	100.00	1410.00	3075.00	1238.00	1169.58	-68.42
G60	320437	101344	68.00	959.00	2545.00	765.00	948.01	183.01
G60	420645	000982	53.00	190.00	523.00	269.00	402.40	133.40
G60	520316	100611	226.00	1400.00	1855.00	728.00	999.50	271.50
G60	520340	100650	119.00	1734.00	2133.00	744.00	1114.08	370.08
G60	520351	100675	126.00	2396.00	2845.00	802.00	1417.78	615.78
G61	120024	001191	163.00	2874.00	4259.00	1182.00	1789.33	607.33
G61	120053	001249	232.00	1976.00	1710.00	763.00	1140.66	377.66

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G61	120060	001259	97.00	585.00	2100.00	754.00	778.31	24.31
G61	120077	001280	1826.00	3782.00	3609.00	1766.00	2326.60	560.60
G61	120078	001281	246.00	3284.00	3163.00	1227.00	1748.20	521.20
G61	120123	001334	211.00	2521.00	3722.00	965.00	1614.02	649.02
G61	120174	001398	1036.00	2410.00	2023.00	816.00	1499.98	683.98
G61	120327	001686	727.00	2288.00	3508.00	850.00	1632.99	782.99
G61	120333	001698	324.00	801.00	1218.00	800.00	750.01	-49.99
G61	120537	001805	90.00	241.00	538.00	677.00	427.82	-249.18
G61	220072	001140	110.00	1500.00	2954.00	1143.00	1177.90	34.90
G61	220083	001196	195.00	1137.00	2411.00	1016.00	1007.36	-8.64
G61	220085	001198	164.00	1746.00	3031.00	636.00	1272.45	636.45
G61	220094	001209	455.00	913.00	1990.00	713.00	936.31	223.31
G61	220095	001210	131.00	1505.00	2840.00	1118.00	1165.82	47.82
G61	220096	001211	92.00	1823.00	3812.00	1203.00	1403.32	200.32
G61	220166	001373	78.00	1866.00	2734.00	1546.00	1248.38	-297.62
G61	220191	001446	97.00	2128.00	3498.00	1156.00	1440.30	284.30
G61	220292	000831	48.00	1754.00	2674.00	885.00	1190.40	305.40
G61	220305	001794	91.00	755.00	1865.00	699.00	787.23	88.23
G61	320028	100070	139.00	1439.00	1913.00	1062.00	999.75	-62.25
G61	320032	100089	236.00	2233.00	3990.00	1273.00	1581.40	308.40
G61	320170	100360	472.00	2583.00	4181.00	1323.00	1765.86	442.86
G61	320176	100344	133.00	2141.00	4019.00	1223.00	1536.18	313.18
G61	320186	100362	410.00	2080.00	3445.00	1151.00	1490.60	339.60
G61	320271	100474	265.00	2600.00	4083.00	1467.00	1707.00	240.00
G61	320318	100593	207.00	2231.00	3429.00	929.00	1483.81	554.81
G61	320384	100887	368.00	2294.00	3563.00	1509.00	1560.47	51.47
G61	320413	101018	198.00	2533.00	3947.00	1387.00	1650.63	263.63
G61	320493	104115	147.00	1624.00	3612.00	1144.00	1327.50	183.50
G61	420043	000042	166.00	7666.00	3618.00	807.00	1627.93	820.93
G61	420062	000060	94.00	2113.00	2937.00	620.00	1345.05	725.05
G61	420081	000083	315.00	2767.00	2319.00	814.00	1480.48	666.48
G61	420096	000094	219.00	2228.00	2819.00	1001.00	1387.54	386.54
G61	420170	000170	112.00	2645.00	3248.00	995.00	1549.93	554.93
G61	420187	000187	113.00	2523.00	2221.00	941.00	1350.28	409.28
G61	420188	000188	225.00	2307.00	2484.00	564.00	1357.37	793.37
G61	420205	000205	293.00	2661.00	2686.00	705.00	1505.87	800.87
G61	420336	000380	131.00	2593.00	2940.00	913.00	1490.02	577.02
G61	520039	100420	199.00	1522.00	160.00	630.00	754.94	124.94
G61	520041	100278	120.00	1716.00	332.00	838.00	819.29	-18.71
G61	520097	100154	290.00	1504.00	1355.00	930.00	963.27	-34.73
G61	520144	100581	192.00	2419.00	3761.00	1626.00	1587.02	-38.98
G61	520152	100089	118.00	1424.00	2181.00	796.00	1033.79	237.79
G61	520156	100513	528.00	2532.00	2802.00	1422.00	1542.39	120.39
G61	520170	100241	42.00	990.00	575.00	582.00	634.77	52.77
G61	520180	100282	203.00	1116.00	1832.00	1002.00	910.06	-91.94
G61	520230	100575	67.00	2291.00	208.00	893.00	938.56	45.56
G61	520266	100565	500.00	1982.00	2460.00	1008.00	1325.10	317.10
G61	620002	000017	161.00	2558.00	2678.00	839.00	1444.87	605.87
G61	620014	000027	579.00	1777.00	3372.00	905.00	1432.15	527.15
G61	620027	000012	170.00	2240.00	3373.00	843.00	1565.37	722.37

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G61	620132	000045	293.00	2109.00	3908.00	1166.00	1546.27	380.27
G61	620133	000144	217.00	2946.00	3738.00	1133.00	1738.34	605.34
G61	620137	000347	120.00	2888.00	4009.00	900.00	1743.10	843.10
G61	620253	000114	919.00	2706.00	2362.00	879.00	1611.30	732.30
G61	620328	000086	250.00	1996.00	2418.00	691.00	1264.46	573.46
G61	620418	000311	124.00	2723.00	2368.00	910.00	1433.13	523.13
G62	120009	001158	1552.00	3576.00	3566.00	1462.00	2197.95	735.95
G62	120084	001288	1619.00	3996.00	3405.00	1737.00	2306.47	569.47
G62	120219	001457	157.00	1930.00	1434.00	701.00	1065.85	364.85
G62	120298	001657	375.00	2274.00	2762.00	882.00	1427.49	545.49
G62	120311	001674	374.00	2435.00	4217.00	1628.00	1707.07	79.07
G62	120331	001695	163.00	2095.00	3149.00	1019.00	1390.04	371.04
G62	120456	001803	215.00	850.00	1135.00	1103.00	725.30	-377.70
G62	220084	001197	260.00	2436.00	2635.00	975.00	1426.31	451.31
G62	220103	001224	93.00	1932.00	2953.00	829.00	1296.14	467.14
G62	220145	001338	354.00	2895.00	3454.00	1254.00	1709.88	455.88
G62	220302	001800	177.00	1837.00	3185.00	825.00	1326.02	501.02
G62	220304	001864	84.00	1033.00	2221.00	655.00	921.64	266.64
G62	220319	000819	94.00	1594.00	2335.00	454.00	1110.83	656.83
G62	320037	100168	262.00	2303.00	2361.00	980.00	1441.59	461.59
G62	320094	100195	259.00	2527.00	2920.00	1242.00	1497.72	255.72
G62	320209	100393	238.00	2696.00	4103.00	1663.00	1745.65	82.65
G62	320240	101314	164.00	2690.00	4032.00	1246.00	1700.91	454.91
G62	320347	101343	144.00	2326.00	3538.00	1141.00	1513.68	372.68
G62	320448	101340	179.00	2944.00	3712.00	1097.00	1724.79	627.79
G62	320482	101514	110.00	2213.00	1210.00	552.00	1099.05	547.05
G62	420261	000261	240.00	2489.00	2004.00	701.00	1335.11	634.11
G62	420392	000491	171.00	3016.00	3148.00	1166.00	1652.54	486.54
G62	420415	000514	229.00	2804.00	2718.00	948.00	1536.70	588.70
G62	420437	000558	136.00	2822.00	2694.00	558.00	1516.42	958.42
G62	420503	000667	84.00	3096.00	3056.00	958.00	1640.25	682.25
G62	420634	000921	169.00	2280.00	3536.00	1410.00	1506.12	96.12
G62	520155	100567	148.00	2631.00	2836.00	1130.00	1487.97	357.97
G62	520163	100541	805.00	3180.00	4152.00	2481.00	2007.30	-473.70
G62	520213	100301	185.00	2352.00	1331.00	1086.00	1271.84	185.84
G62	520236	100560	359.00	3002.00	3428.00	1566.00	1737.15	171.15
G62	520273	100517	258.00	2873.00	2805.00	1388.00	1576.96	188.96
G62	520282	100520	313.00	2694.00	3400.00	1587.00	1634.78	47.78
G62	620134	000092	130.00	1753.00	2382.00	1386.00	1162.09	-223.91
G62	620135	000090	596.00	2360.00	2748.00	1288.00	1502.99	214.99
G62	620139	000284	161.00	2705.00	2441.00	897.00	1448.34	551.34
G62	620213	000301	418.00	1120.00	2078.00	1089.00	1000.54	-88.46
G62	620270	000293	234.00	3160.00	3221.00	971.00	1719.64	748.64
G62	620295	000043	-1.00	-1.00	-1.00	1477.00		
G63	420602	000863	49.00	377.00	1669.00	268.00	638.32	370.32
G64	120063	001263	88.00	2244.00	3577.00	892.00	1483.78	591.78
G64	120113	001323	152.00	1756.00	3068.00	676.00	1278.46	602.46
G64	320010	100038	73.00	373.00	1170.00	562.00	563.01	1.01
G64	320232	100404	113.00	1000.00	3395.00	851.00	1108.00	257.00
G64	420094	000091	61.00	1579.00	2897.00	564.00	1179.75	615.75

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G64	620232	000141	133.00	1506.00	2631.00	604.00	1132.92	528.92
G65	220356	001883	30.00	1168.00	2625.00	670.00	1012.41	342.41
G65	520357	100701	55.00	607.00	1137.00	523.00	619.79	96.79
G66	120016	001167	164.00	1876.00	2462.00	882.00	1217.66	335.66
G66	120018	001169	85.00	868.00	1818.00	650.00	810.27	160.27
G66	120037	001216	137.00	1937.00	2872.00	864.00	1294.69	430.69
G66	120085	001289	125.00	2013.00	2204.00	837.00	1205.90	368.90
G66	120090	001296	111.00	1321.00	3493.00	1640.00	1214.21	-425.79
G66	120122	001333	101.00	1815.00	3005.00	1133.00	1273.23	140.23
G66	120126	001337	69.00	858.00	1697.00	723.00	784.26	61.26
G66	120143	001356	78.00	1011.00	1775.00	636.00	842.22	206.22
G66	120144	001357	121.00	811.00	2036.00	834.00	837.55	3.55
G66	120228	001467	181.00	2397.00	2955.00	1162.00	1448.50	286.50
G66	220105	001229	105.00	1710.00	2350.00	941.00	1138.98	197.98
G66	220143	001336	106.00	1919.00	2681.00	1514.00	1251.68	-262.32
G66	220146	001339	55.00	1215.00	2437.00	874.00	1010.90	136.90
G66	220149	001345	92.00	663.00	1565.00	694.00	713.11	19.11
G66	220155	001356	23.00	1233.00	2315.00	936.00	980.68	44.68
G66	220160	001361	97.00	604.00	1532.00	653.00	692.25	39.25
G66	220165	001370	151.00	699.00	1283.00	772.00	691.56	-80.44
G66	220188	001438	91.00	1049.00	1812.00	673.00	861.95	188.95
G66	220256	001614	86.00	755.00	1709.00	493.00	775.45	282.45
G66	320179	100374	118.00	928.00	1602.00	781.00	800.13	19.13
G66	320253	100707	148.00	904.00	1810.00	925.00	833.76	-91.24
G66	320302	101285	142.00	2031.00	2648.00	972.00	1286.41	314.41
G66	320304	101322	208.00	2155.00	2751.00	1156.00	1353.38	197.38
G66	320342	100597	139.00	1529.00	2563.00	951.00	1129.88	178.88
G66	320353	101149	85.00	943.00	1361.00	695.00	854.53	159.53
G66	320359	100641	190.00	1673.00	2494.00	899.00	1171.35	272.35
G66	420049	000047	95.00	1773.00	2589.00	804.00	1192.98	388.98
G66	420055	000056	94.00	1810.00	2067.00	711.00	1119.19	408.19
G66	420112	000113	54.00	1664.00	1747.00	645.00	1017.08	372.08
G66	420390	000489	79.00	1481.00	1758.00	647.00	972.81	325.81
G66	420461	000609	70.00	2126.00	2726.00	844.00	1309.21	465.21
G66	420467	000615	93.00	1313.00	2201.00	726.00	999.79	273.79
G66	420483	000631	74.00	2227.00	2558.00	804.00	1311.69	507.69
G66	420493	000651	85.00	1621.00	2138.00	755.00	1075.02	320.02
G66	420494	000652	72.00	1834.00	2393.00	832.00	1173.38	341.38
G66	420564	000781	112.00	2636.00	2803.00	1248.00	1475.74	227.74
G66	420635	000969	44.00	476.00	917.00	479.00	544.74	65.74
G66	520064	100014	130.00	1045.00	87.00	457.00	592.15	135.15
G66	520133	100127	182.00	1340.00	345.00	905.00	729.25	-175.75
G66	520196	100677	170.00	978.00	987.00	407.00	727.31	320.31
G66	520275	100502	87.00	1128.00	895.00	723.00	735.78	12.78
G66	520333	100664	119.00	1213.00	1659.00	766.00	890.24	124.24
G66	520341	100663	163.00	1447.00	167.00	564.00	726.50	162.50
G66	520347	100667	107.00	693.00	1168.00	570.00	661.17	91.17
G66	520348	100665	113.00	906.00	1631.00	515.00	797.41	282.41
G66	520370	100775	90.00	827.00	1299.00	571.00	716.27	145.27
G66	620147	000041	75.00	2729.00	3912.00	1676.00	1667.51	-8.49

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G66	620144	000207	72.00	1645.00	1490.00	923.00	974.49	51.49
G66	620145	000296	99.00	1279.00	2058.00	738.00	968.53	230.53
G66	620146	000325	90.00	1781.00	2775.00	1040.00	1224.03	184.03
G66	620147	000264	115.00	1505.00	2168.00	807.00	1053.94	246.94
G66	620148	000176	87.00	862.00	1235.00	724.00	715.18	-8.82
G66	620149	000278	94.00	1896.00	1800.00	817.00	1100.56	283.56
G66	620151	000302	184.00	1825.00	2135.00	943.00	1155.21	212.21
G66	620318	000289	113.00	1524.00	2062.00	841.00	1041.79	200.79
G66	620446	000298	170.00	1539.00	1315.00	677.00	938.98	261.98
G67	120073	001275	81.00	2177.00	2604.00	939.00	1306.56	367.56
G67	120120	001331	96.00	2537.00	3028.00	1407.00	1480.23	73.23
G67	120142	001355	103.00	2152.00	2738.00	1057.00	1326.14	269.14
G67	120193	001416	77.00	1814.00	2936.00	1193.00	1256.28	63.28
G67	120203	001426	108.00	1120.00	2692.00	1012.00	1027.65	15.65
G67	120211	001444	173.00	2679.00	2493.00	1275.00	1452.13	177.13
G67	120214	001450	106.00	1696.00	3217.00	680.00	1274.81	594.81
G67	220144	001337	92.00	1767.00	3823.00	1203.00	1389.23	186.23
G67	220181	001415	74.00	831.00	1516.00	1018.00	748.63	-269.37
G67	220273	000679	74.00	780.00	1457.00	770.00	724.69	-45.31
G67	220315	001802	82.00	305.00	708.00	300.00	471.46	171.46
G67	220372	001893	90.00	1003.00	1061.00	587.00	727.80	140.80
G67	320020	100055	122.00	2510.00	3801.00	1970.00	1603.03	-366.97
G67	320119	100214	156.00	2202.00	3026.00	1310.00	1398.92	88.92
G67	320235	100425	143.00	1798.00	2970.00	1336.00	1264.45	-71.55
G67	320327	100686	125.00	2883.00	3164.00	1633.00	1606.81	-26.19
G67	320335	100619	179.00	2839.00	3782.00	1864.00	1706.33	-157.67
G67	320343	100689	124.00	1825.00	3116.00	1428.00	1299.25	-128.75
G67	320364	100629	155.00	2935.00	3703.00	1321.00	1715.24	394.24
G67	420115	000118	92.00	2551.00	3073.00	1247.00	1490.51	243.51
G67	420457	000605	72.00	1780.00	2183.00	975.00	1124.28	149.28
G67	420581	000840	132.00	2551.00	2736.00	1183.00	1487.37	304.37
G67	420590	000851	109.00	2519.00	2109.00	1295.00	1420.91	124.91
G67	420630	000916	123.00	2090.00	1781.00	870.00	1161.42	291.42
G67	520054	100016	101.00	1108.00	515.00	621.00	672.18	51.18
G67	520092	100106	103.00	1785.00	1582.00	915.00	1036.12	121.12
G67	520130	10009	103.00	1008.00	746.00	627.00	687.95	60.95
G67	520237	100318	157.00	977.00	1852.00	777.00	863.27	86.27
G67	520342	100651	150.00	1933.00	2500.00	1203.00	1236.68	33.68
G67	520369	100706	90.00	1445.00	1688.00	821.00	953.89	132.89
G67	520371	100773	73.00	1511.00	2461.00	810.00	1093.09	283.09
G67	620154	000145	131.00	2256.00	2677.00	1112.00	1352.25	240.25
G67	620212	000171	51.00	1402.00	2567.00	855.00	1074.20	219.20
G67	620221	000152	102.00	2191.00	2359.00	1147.00	1275.94	128.94
G67	620237	000060	170.00	1913.00	1371.00	880.00	1053.90	173.90
G67	620276	000292	108.00	1450.00	1285.00	839.00	894.60	55.60
G68	120032	001203	111.00	1605.00	2852.00	808.00	1191.44	383.44
G68	120171	001395	126.00	2064.00	2654.00	972.00	1293.02	321.02
G68	120257	001559	157.00	3268.00	2771.00	1429.00	1659.97	230.97
G68	120285	001622	180.00	2492.00	3059.00	1021.00	1491.91	470.91
G68	120332	001697	55.00	1663.00	2859.00	1045.00	1196.04	151.04

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G68	120334	001699	60.00	777.00	2164.00	552.00	834.42	282.42
G68	220104	001227	30.00	617.00	2677.00	521.00	864.75	343.75
G68	220128	001307	226.00	1613.00	2881.00	933.00	1224.99	291.99
G68	220135	001319	50.00	1569.00	3845.00	1295.00	1326.99	31.99
G68	220139	001328	92.00	1345.00	2322.00	992.00	1028.10	36.10
G68	220153	001352	48.00	690.00	1201.00	397.00	651.98	254.98
G68	220214	001562	65.00	1234.00	2881.00	1121.00	1080.41	-40.59
G68	220363	001902	73.00	673.00	1876.00	389.00	761.61	372.61
G68	220364	001885	64.00	694.00	2193.00	490.00	874.28	384.28
G68	320058	100152	89.00	297.00	743.00	254.00	476.45	222.45
G68	320187	100516	120.00	1598.00	3302.00	1117.00	1263.98	146.98
G68	320205	100384	121.00	2255.00	2632.00	967.00	1342.41	375.41
G68	320210	100395	891.00	1680.00	3228.00	1103.00	1453.69	350.69
G68	320322	100579	111.00	1603.00	2744.00	971.00	1173.49	202.49
G68	320370	100826	62.00	1357.00	3191.00	1171.00	1164.45	-6.55
G68	320425	101291	108.00	844.00	2931.00	624.00	987.97	363.97
G68	320483	101622	92.00	1740.00	3901.00	1004.00	1394.14	390.14
G68	420109	000110	63.00	2108.00	2954.00	879.00	1339.19	460.19
G68	420190	000190	92.00	2398.00	3189.00	898.00	1465.86	567.86
G68	420191	000191	63.00	962.00	2735.00	443.00	979.42	536.42
G68	420449	000572	76.00	2979.00	3379.00	976.00	1649.22	673.22
G68	420458	000606	247.00	3068.00	3920.00	1336.00	1809.13	473.13
G68	420580	000839	59.00	1379.00	2025.00	606.00	982.28	376.28
G68	420591	000852	63.00	2336.00	3890.00	934.00	1554.44	620.44
G68	520055	100011	107.00	814.00	1381.00	720.00	826.31	106.31
G68	520136	100162	113.00	965.00	1403.00	595.00	777.41	182.41
G68	520143	100494	218.00	2368.00	3115.00	1135.00	1474.60	339.60
G68	520153	100092	98.00	1480.00	2255.00	1029.00	1056.93	27.93
G68	520182	100539	364.00	1976.00	1106.00	856.00	1073.97	217.97
G68	520226	100608	58.00	809.00	1648.00	399.00	759.95	360.95
G68	520296	100582	101.00	1186.00	335.00	379.00	674.95	295.95
G68	620136	000093	51.00	1780.00	2635.00	1119.00	1193.88	74.88
G68	620140	000346	257.00	2035.00	2887.00	1202.00	1321.28	119.28
G68	620330	000069	66.00	1577.00	2551.00	1036.00	1123.23	87.23
G68	620403	000218	158.00	2349.00	3086.00	1584.00	1450.67	-133.33
G70	120010	001159	92.00	2625.00	3606.00	510.00	1597.27	1087.27
G70	220033	001066	205.00	640.00	1090.00	592.00	656.28	64.28
G70	220338	001906	44.00	336.00	1261.00	267.00	560.47	293.47
G70	320029	100086	115.00	956.00	1747.00	753.00	830.70	77.70
G70	320306	100563	267.00	2018.00	2875.00	1808.00	1348.19	-459.81
G70	320387	100798	194.00	1387.00	2782.00	854.00	1137.65	283.65
G70	320481	101487	85.00	2064.00	3447.00	850.00	1411.19	561.19
G70	420397	000496	179.00	2607.00	4167.00	1442.00	1702.61	260.61
G70	420398	000497	771.00	2603.00	3329.00	789.00	1703.55	914.55
G70	420408	000507	96.00	2222.00	3520.00	1154.00	1470.23	316.23
G70	420444	000565	101.00	3292.00	3230.00	980.00	1727.70	747.70
G70	420445	000566	66.00	3836.00	3648.00	1515.00	1940.74	425.94
G70	520137	100120	152.00	1427.00	2188.00	1110.00	1043.63	-66.37
G70	520138	100556	136.00	2783.00	2625.00	1063.00	1494.27	431.27
G70	520156	100160	116.00	1607.00	1742.00	1076.00	1014.48	-61.52

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G70	520169	100175	222.00	2125.00	1942.00	1429.00	1217.89	-211.11
G70	520013	000026	57.00	1739.00	2458.00	890.00	1153.47	263.47
G70	620142	000310	153.00	2464.00	3525.00	1259.00	1552.75	293.75
G70	620274	000030	193.00	2339.00	3013.00	831.00	1444.19	613.19
G70	620321	000273	179.00	1341.00	1914.00	558.00	981.42	423.42
G71	120094	001301	185.00	2453.00	3102.00	1891.00	1488.94	-402.06
G71	120154	001373	193.00	2362.00	3302.00	1618.00	1497.22	-120.78
G71	120217	001455	215.00	2521.00	2042.00	1532.00	1344.50	-187.50
G71	120278	001592	116.00	2125.00	2909.00	1405.00	1349.03	-55.97
G71	120309	001672	165.00	1709.00	2282.00	1187.00	1141.63	-45.37
G71	120314	001678	97.00	2508.00	2716.00	1372.00	1422.02	50.02
G71	120318	001682	159.00	2030.00	2787.00	1129.00	1312.44	183.44
G71	220015	000955	49.00	1563.00	2682.00	935.00	1137.84	202.84
G71	220046	001088	102.00	1424.00	3066.00	1383.00	1172.55	-210.45
G71	220048	001090	42.00	1077.00	2353.00	1026.00	945.63	-80.37
G71	220053	001095	94.00	1318.00	2264.00	1268.00	1011.58	-256.42
G71	220069	001129	64.00	1276.00	2363.00	1359.00	1008.68	-350.32
G71	220301	001872	62.00	1419.00	1857.00	1112.00	967.26	-144.74
G71	320098	100248	153.00	2009.00	3123.00	1868.00	1359.19	-508.81
G71	320171	100342	92.00	1509.00	3223.00	1019.00	1219.58	200.58
G71	320178	100366	110.00	1384.00	2543.00	1163.00	1078.89	-84.11
G71	320280	100472	125.00	1651.00	2926.00	1279.00	1219.62	-59.38
G71	320415	100889	87.00	972.00	1461.00	1400.00	782.72	-617.28
G71	420171	000171	76.00	1509.00	2618.00	896.00	1118.49	222.49
G71	420469	000617	95.00	1801.00	2964.00	814.00	1261.27	447.27
G71	420476	000618	76.00	2438.00	3321.00	1209.00	1494.73	285.73
G71	420497	000655	81.00	2162.00	3011.00	1223.00	1367.83	144.83
G71	520025	100163	139.00	1714.00	1526.00	1315.00	1015.33	-299.67
G71	520028	100019	66.00	1315.00	2340.00	1139.00	1016.49	-122.51
G71	520106	100265	174.00	1407.00	225.00	668.00	727.06	59.06
G71	520142	100085	232.00	1251.00	179.00	499.00	688.90	189.90
G71	520280	100548	100.00	2614.00	3089.00	1432.00	1512.78	80.78
G71	620170	000291	157.00	1964.00	1612.00	1080.00	1104.13	24.13
G71	620171	000118	255.00	1734.00	2547.00	1208.00	1212.19	4.19
G71	620271	000111	209.00	1856.00	2955.00	2090.00	1301.55	-788.45
G71	620301	000223	110.00	1672.00	2425.00	1357.00	1141.45	-215.55
G71	620322	000031	145.00	2523.00	4645.00	1943.00	1747.70	-201.10
G72	120221	001459	118.00	2637.00	2597.00	1390.00	1444.25	54.25
G72	120236	001481	109.00	2081.00	2386.00	978.00	1250.76	272.76
G72	220106	001230	90.00	719.00	1524.00	818.00	721.91	-96.09
G72	220177	001410	90.00	1393.00	2246.00	804.00	1030.70	226.70
G72	220180	001414	90.00	1621.00	1941.00	1420.00	1044.46	-375.54
G72	320061	100127	196.00	2552.00	3143.00	1636.00	1526.12	-109.88
G72	320163	100431	177.00	2538.00	2373.00	1266.00	1393.81	127.81
G72	320352	100625	197.00	1418.00	2267.00	1343.00	1064.21	-278.79
G72	320433	101096	75.00	127.00	568.00	180.00	396.90	216.90
G72	420589	000850	118.00	2318.00	2924.00	1020.00	1406.56	386.56
G72	520096	100302	109.00	1226.00	1118.00	834.00	804.52	-29.48
G72	520246	100421	120.00	946.00	944.00	477.00	699.76	222.76
G72	620152	000167	149.00	1869.00	2700.00	1042.00	1250.52	208.52

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G72	620277	000177	112.00	1319.00	1947.00	911.00	965.00	54.00
G73	120102	001312	87.00	1512.00	1985.00	928.00	1019.98	91.98
G73	120127	001338	130.00	2668.00	3644.00	1524.00	1624.35	100.35
G73	120138	001351	93.00	544.00	1017.00	416.00	591.43	175.43
G73	120167	001389	138.00	827.00	1281.00	749.00	724.48	-24.52
G73	120225	001464	154.00	1818.00	2338.00	1099.00	1178.97	79.97
G73	220119	001262	111.00	589.00	937.00	607.00	605.12	-1.88
G73	220187	001435	105.00	1009.00	1800.00	909.00	851.93	-57.07
G73	220323	000811	81.00	1298.00	2477.00	801.00	1037.20	236.20
G73	220344	001892	92.00	1012.00	2267.00	844.00	924.95	80.95
G73	220369	001871	115.00	775.00	1189.00	630.00	689.62	59.62
G73	320038	100171	139.00	630.00	1358.00	825.00	681.32	-143.68
G73	320051	100385	146.00	1559.00	2257.00	875.00	1090.73	215.73
G73	320155	100302	164.00	735.00	1341.00	764.00	714.10	-49.90
G73	320365	100638	178.00	2207.00	3822.00	1568.00	1533.57	-34.43
G73	420168	000168	67.00	2274.00	3714.00	878.00	1509.47	631.47
G73	420290	000304	108.00	1398.00	2513.00	416.00	1077.56	661.56
G73	420423	000522	90.00	1860.00	3089.00	718.00	1296.95	578.95
G73	420453	000576	70.00	1918.00	2837.00	1020.00	1235.98	215.98
G73	420592	000853	107.00	579.00	1330.00	363.00	654.97	291.97
G73	420629	000912	89.00	1146.00	2381.00	630.00	980.32	350.32
G73	520038	100020	94.00	1276.00	1331.00	772.00	849.49	77.49
G73	520059	100199	110.00	1176.00	2147.00	1102.00	956.24	-145.76
G73	520103	100178	95.00	1356.00	2404.00	1402.00	1045.11	-356.89
G73	520135	100583	119.00	1261.00	2027.00	832.00	963.07	131.07
G73	620153	000299	97.00	1458.00	2674.00	1011.00	1117.92	106.92
G73	620208	000115	140.00	1152.00	1703.00	654.00	884.91	230.91
G73	620324	000168	115.00	1411.00	2120.00	733.00	1019.59	286.59
G74	120109	001319	97.00	1559.00	2673.00	1112.00	1146.82	34.82
G74	120139	001352	101.00	1900.00	3368.00	1269.00	1352.51	83.51
G74	120150	001368	124.00	2015.00	2713.00	1326.00	1288.18	-37.82
G74	120167	001387	182.00	1670.00	3148.00	1348.00	1273.93	-74.07
G74	120259	001564	204.00	1935.00	2404.00	1365.00	1235.14	-129.86
G74	120335	001700	127.00	1246.00	2650.00	1122.00	1060.97	-61.03
G74	120419	001817	136.00	1683.00	2116.00	926.00	1102.53	176.53
G74	120532	001810	112.00	374.00	1123.00	1232.00	564.47	-667.53
G74	220049	001091	88.00	891.00	2116.00	889.00	865.68	-23.32
G74	220050	001092	79.00	1068.00	2262.00	933.00	936.99	3.99
G74	220052	001094	57.00	934.00	1804.00	914.00	819.95	-94.05
G74	220055	001098	71.00	818.00	1543.00	674.00	748.60	74.60
G74	220056	001099	35.00	720.00	1713.00	614.00	737.89	125.89
G74	220075	001153	46.00	730.00	2117.00	589.00	810.30	221.30
G74	220134	001316	73.00	636.00	2046.00	743.00	779.89	36.89
G74	320164	100367	184.00	1531.00	2270.00	1231.00	1093.69	-137.31
G74	320259	100424	106.00	1297.00	2660.00	1155.00	1072.16	-82.84
G74	320380	100709	124.00	1304.00	3035.00	1197.00	1138.67	-58.33
G74	320403	100828	175.00	1452.00	2775.00	1401.00	1150.53	-250.47
G74	320457	101462	131.00	1845.00	2339.00	1280.00	1181.45	-98.55
G74	320458	101442	118.00	1418.00	2220.00	1015.00	1038.37	23.37
G74	320484	101837	120.00	1269.00	2568.00	1075.00	1051.53	-23.47

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G74	320492	102947	143.00	1825.00	2857.00	1190.00	1261.95	71.95
G74	420015	000026	102.00	1519.00	2740.00	1045.00	1146.98	101.98
G74	420023	000027	60.00	1508.00	2287.00	825.00	1061.22	236.22
G74	420033	000007	141.00	1046.00	1684.00	676.00	852.06	176.06
G74	420036	000033	52.00	1168.00	2882.00	782.00	1059.87	276.87
G74	420050	000048	65.00	1258.00	2233.00	686.00	982.89	296.89
G74	420066	000073	121.00	1548.00	2744.00	998.00	1160.23	162.23
G74	420068	000072	86.00	1157.00	2172.00	698.00	949.33	251.33
G74	420100	000101	51.00	1664.00	2430.00	940.00	1126.33	186.33
G74	520023	100145	86.00	579.00	124.00	323.00	455.96	132.96
G74	520024	100110	61.00	1626.00	306.00	872.00	775.97	-96.03
G74	520159	100523	170.00	867.00	1916.00	1101.00	845.43	-255.57
G74	520279	100529	111.00	1532.00	829.00	998.00	845.11	-152.89
G74	520334	100631	77.00	1082.00	1655.00	885.00	842.78	-42.22
G74	520358	100695	91.00	871.00	1164.00	562.00	707.23	145.23
G74	520359	100698	119.00	913.00	1359.00	676.00	756.99	80.99
G74	520364	100705	108.00	1047.00	1756.00	787.00	856.30	69.30
G74	620005	000020	102.00	799.00	1544.00	989.00	750.56	-238.44
G74	620163	000234	126.00	1265.00	1413.00	844.00	866.98	22.98
G74	620164	000275	75.00	716.00	1274.00	763.00	677.34	-85.66
G74	620166	000173	71.00	1035.00	1488.00	763.00	801.20	38.20
G74	620167	000121	182.00	1595.00	2116.00	1336.00	1086.56	-249.44
G74	620168	000209	87.00	1384.00	2034.00	1122.00	991.63	-130.37
G74	620169	000267	99.00	1273.00	1878.00	985.00	937.86	-47.14
G74	620409	000322	116.00	1752.00	2266.00	1149.00	1139.89	-9.11
G74	620410	000319	261.00	1924.00	2034.00	1414.00	1194.46	-219.54
G75	120121	001332	110.00	2947.00	4497.00	1311.00	1836.05	525.05
G75	120123	001687	177.00	1969.00	3639.00	1276.00	1468.68	192.68
G75	120405	001718	174.00	2536.00	3701.00	1431.00	1606.33	175.33
G75	120412	001758	167.00	1901.00	4120.00	1501.00	1492.34	-8.66
G75	120413	001739	148.00	474.00	1185.00	1399.00	611.09	-787.91
G75	120415	001787	166.00	772.00	1762.00	1535.00	792.81	-742.19
G75	120420	001719	160.00	2356.00	3688.00	1376.00	1550.03	174.03
G75	120424	001756	99.00	2509.00	3839.00	1501.00	1603.55	102.55
G75	220003	000931	117.00	2310.00	4293.00	1702.00	1624.44	-77.56
G75	220035	001068	148.00	2102.00	4102.00	1443.00	1541.97	102.97
G75	220058	001102	86.00	1054.00	2572.00	1048.00	984.27	-63.73
G75	220060	001105	83.00	1516.00	3913.00	1029.00	1266.17	237.17
G75	220061	001106	95.00	2166.00	4204.00	1461.00	1564.25	103.25
G75	220068	001122	73.00	1630.00	3744.00	1454.00	1333.32	-120.68
G75	220070	001130	121.00	1553.00	3457.00	1277.00	1276.42	-0.58
G75	220077	001175	80.00	1768.00	3769.00	1089.00	1378.05	289.05
G75	220078	001176	130.00	1891.00	3807.00	1723.00	1430.56	-292.44
G75	220079	001190	97.00	1509.00	3409.00	1211.00	1250.68	39.68
G75	220122	001288	142.00	1771.00	3537.00	1227.00	1355.89	128.89
G75	320022	100058	117.00	2595.00	4260.00	1859.00	1699.84	-159.16
G75	320103	100504	123.00	1961.00	4191.00	1740.00	1510.58	-229.42
G75	320234	100441	186.00	1836.00	4075.00	1465.00	1471.09	6.09
G75	320264	100492	137.00	2388.00	4134.00	1531.00	1625.56	94.56
G75	320314	100550	197.00	1643.00	3986.00	1621.00	1404.65	-216.35

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G75	320320	100576	116.00	3284.00	4236.00	1635.00	1890.85	255.85
G75	320331	100601	140.00	2580.00	4192.00	1456.00	1692.23	236.23
G75	320332	101362	154.00	3439.00	4262.00	1674.00	1947.72	273.72
G75	320360	100867	167.00	2316.00	3242.00	1466.00	1468.52	2.52
G75	320366	100706	208.00	2633.00	4271.00	1697.00	1733.42	36.42
G75	420082	000082	114.00	2452.00	3976.00	942.00	1612.93	670.93
G75	420125	000123	91.00	2498.00	3971.00	1038.00	1619.83	581.83
G75	420217	000217	136.00	2651.00	3946.00	1012.00	1669.54	657.54
G75	420262	000262	122.00	3078.00	4040.00	1397.00	1802.35	405.35
G75	420389	000488	105.00	2615.00	4168.00	1262.00	1687.91	425.91
G75	420448	000569	95.00	3111.00	4177.00	1296.00	1827.50	531.50
G75	420464	000612	118.00	2587.00	3827.00	1181.00	1628.10	447.10
G75	420501	000659	76.00	3505.00	4047.00	1518.00	1913.75	395.75
G75	420583	000668	100.00	2596.00	4171.00	805.00	1681.86	876.86
G75	420504	000662	114.00	2468.00	4080.00	1089.00	1634.20	545.20
G75	420588	000849	98.00	3635.00	4179.00	1837.00	1976.90	139.90
G75	520026	100542	123.00	2288.00	3261.00	982.00	1453.47	471.47
G75	520052	100012	121.00	1170.00	2089.00	760.00	947.75	187.75
G75	520184	100248	141.00	2143.00	3349.00	1389.00	1430.74	41.74
G75	520194	100473	121.00	1080.00	2396.00	825.00	971.68	146.68
G75	520195	100531	136.00	1908.00	2733.00	930.00	1263.87	333.87
G75	520278	100522	142.00	1306.00	1712.00	692.00	930.43	238.43
G75	520281	100516	122.00	1134.00	1813.00	628.00	893.35	265.35
G75	520283	100556	185.00	1437.00	2556.00	830.00	1113.34	283.34
G75	520287	100550	189.00	1671.00	2581.00	676.00	1184.55	508.55
G75	520297	100574	161.00	1962.00	3138.00	959.00	1350.15	391.15
G75	620155	000028	261.00	3486.00	5034.00	1956.00	2110.06	154.06
G75	620156	000252	184.00	3056.00	4636.00	1469.00	1906.41	437.41
G75	620157	000261	170.00	1240.00	3223.00	803.00	1161.46	358.46
G75	620159	000271	135.00	1631.00	3456.00	1747.00	1301.59	-445.41
G75	620160	000309	129.00	2423.00	4183.00	1255.00	1643.21	388.21
G75	620161	000162	101.00	1885.00	4214.00	1560.00	1487.67	-72.33
G75	620162	000122	130.00	1886.00	3924.00	1198.00	1447.98	249.98
G75	620241	000277	154.00	2344.00	3679.00	1063.00	1543.79	480.79
G75	620252	000046	121.00	3179.00	4545.00	2157.00	1912.02	-244.98
G75	620423	000303	209.00	1854.00	4344.00	1444.00	1524.81	80.81
G77	120240	001510	126.00	1767.00	2956.00	912.00	1257.53	345.53
G77	120241	001518	122.00	2340.00	3317.00	1854.00	1476.98	-377.02
G77	120316	001680	147.00	2314.00	3363.00	1434.00	1579.11	145.11
G77	120317	001681	175.00	2641.00	3969.00	1442.00	1679.44	237.44
G77	120403	001724	505.00	1182.00	2141.00	1322.00	1048.37	-273.63
G77	220089	001203	146.00	2457.00	3834.00	1379.00	1598.89	269.89
G77	220123	001302	88.00	1516.00	2971.00	1464.00	1180.07	-283.93
G77	220124	001303	99.00	1639.00	3105.00	1992.00	1238.74	-753.26
G77	220125	001304	90.00	1491.00	2753.00	1292.00	1170.56	-121.44
G77	220126	001305	98.00	1857.00	2883.00	1894.00	1264.79	-629.21
G77	220129	001311	120.00	1441.00	3096.00	1807.00	1186.36	-620.64
G77	220130	001312	75.00	1366.00	3041.00	1141.00	1145.86	4.86
G77	220132	001314	80.00	1318.00	1928.00	720.00	954.25	234.25
G77	320083	100316	125.00	1630.00	3609.00	1648.00	1334.95	-313.05

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
G77	320128	100299	230.00	2360.00	4004.00	1959.00	1618.22	-340.78
G77	320169	100298	116.00	1330.00	3317.00	1272.00	1189.58	-82.42
G77	320206	100402	115.00	2276.00	3510.00	1590.00	1488.30	-101.70
G77	320266	100724	94.00	1864.00	3532.00	1743.00	1370.32	-372.68
G77	320296	101239	140.00	2095.00	4027.00	1607.00	1526.06	-80.94
G77	320348	100603	133.00	2172.00	3804.00	1157.00	1510.35	353.35
G77	320408	101071	107.00	2933.00	4074.00	1517.00	1763.76	246.76
G77	420149	000149	85.00	2155.00	3595.00	1221.00	1460.78	239.78
G77	420157	000157	75.00	2508.00	2475.00	827.00	1378.13	551.13
G77	420402	000501	141.00	3250.00	3609.00	1496.00	1786.07	290.07
G77	420459	000607	79.00	2680.00	2881.00	982.00	1493.12	511.12
G77	420465	000613	284.00	2452.00	2873.00	1336.00	1474.70	138.70
G77	420490	000637	252.00	2959.00	3507.00	1616.00	1712.93	96.93
G77	420579	000838	155.00	2718.00	3149.00	1370.00	1564.61	194.61
G77	520008	100001	133.00	1689.00	3443.00	999.00	1315.46	316.46
G77	520009	100002	219.00	2010.00	3307.00	636.00	1404.36	768.36
G77	520116	100046	168.00	1678.00	2371.00	720.00	1147.87	427.87
G77	520117	100052	137.00	1523.00	2385.00	607.00	1099.06	492.06
G77	520119	100054	140.00	1405.00	2929.00	827.00	1153.91	326.91
G77	520120	100051	142.00	1345.00	1634.00	515.00	928.92	413.92
G77	520121	100053	123.00	1495.00	1599.00	509.00	961.36	452.36
G77	620173	000125	208.00	2268.00	3564.00	1637.00	1516.25	-120.75
G77	620174	000112	135.00	2199.00	3365.00	2001.00	1447.79	-553.21
G77	620257	000008	137.00	2067.00	3509.00	1682.00	1432.63	-249.37
G77	620262	000102	102.00	921.00	1234.00	837.00	735.20	-101.80
G77	620294	000088	136.00	2046.00	3918.00	2026.00	1493.71	-532.29
G77	620296	000078	183.00	1031.00	1167.00	691.00	774.31	83.31
G77	620319	000138	153.00	2133.00	3809.00	1589.00	1504.74	-84.26
G78	320502	104125	158.00	2257.00	4192.00	1557.00	1602.66	45.66
G78	520239	100316	94.00	1546.00	2934.00	1093.00	1184.00	91.00
V82	120071	001273	100.00	1590.00	3310.00	1701.00	1355.82	-345.18
V82	120083	001286	240.00	2887.00	980.00	2016.00	1281.55	-734.45
V82	120197	001420	148.00	1394.00	3032.00	1438.00	1169.23	-268.77
V82	220073	001138	125.00	1435.00	2862.00	1747.00	1148.15	-598.85
V82	220080	001191	78.00	321.00	852.00	928.00	498.25	-429.75
V82	220137	001323	94.00	707.00	3120.00	1230.00	976.36	-253.64
V82	320153	100388	232.00	1767.00	3091.00	2160.00	1303.79	-856.21
V82	320217	100612	91.00	855.00	2416.00	1141.00	904.24	-236.76
V82	320363	101068	108.00	1374.00	1296.00	2031.00	874.85	-1156.15
V82	420200	000200	114.00	1741.00	1132.00	892.00	953.76	61.76
V82	420393	000492	99.00	1088.00	724.00	711.00	699.70	-11.30
V82	420419	000518	82.00	1547.00	1378.00	1131.00	931.02	-199.98
V82	420577	000836	117.00	2566.00	1319.00	1933.00	1218.18	-714.82
V82	520050	100013	81.00	1710.00	3574.00	1346.00	1330.46	-15.54
V82	520080	100197	113.00	2909.00	1905.00	2192.00	1408.72	-783.28
V82	520215	100483	138.00	2692.00	1823.00	1262.00	1339.85	77.85
V82	620179	000096	149.00	1026.00	2380.00	1179.00	960.29	-218.71
V82	620180	000068	123.00	1323.00	1238.00	1519.00	854.54	-664.46
V82	620182	000109	85.00	1340.00	2684.00	1336.00	1085.61	-250.39
V83	120029	001199	98.00	2990.00	4083.00	2771.00	1778.80	-992.20

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V83	120045	001234	82.00	2263.00	3627.00	1822.00	1495.82	-326.18
V83	120056	001253	87.00	1921.00	2636.00	1577.00	1240.60	-336.40
V83	120057	001254	97.00	2590.00	2047.00	2198.00	1337.54	-860.46
V83	120059	001258	102.00	2242.00	3645.00	2423.00	1497.40	-925.60
V83	120061	001260	123.00	2999.00	2589.00	2016.00	1546.63	-469.37
V83	120064	001264	118.00	2145.00	3242.00	1873.00	1416.81	-456.19
V83	120065	001265	159.00	2828.00	2802.00	2400.00	1540.83	-859.17
V83	120066	001266	114.00	1795.00	3241.00	1715.00	1308.56	-406.44
V83	120068	001268	106.00	1813.00	3406.00	1820.00	1338.37	-481.63
V83	120069	001269	78.00	1780.00	3184.00	1878.00	1286.81	-591.19
V83	120072	001274	95.00	1939.00	3309.00	1908.00	1355.89	-552.11
V83	120075	001278	62.00	2266.00	2381.00	1975.00	1371.95	-603.05
V83	120106	001316	90.00	2034.00	2600.00	1832.00	1267.50	-564.50
V83	120116	001326	104.00	2250.00	3320.00	1936.00	1448.74	-487.26
V83	120135	001348	83.00	1021.00	1882.00	1544.00	863.44	-680.56
V83	120209	001440	100.00	2823.00	3310.00	2663.00	1607.54	-1055.46
V83	220025	001043	47.00	1055.00	1759.00	1597.00	844.94	-752.06
V83	220026	001045	43.00	1194.00	2538.00	1825.00	1008.78	-816.22
V83	220047	001089	21.00	824.00	1962.00	1654.00	806.18	-847.82
V83	220059	001103	65.00	1508.00	2427.00	1841.00	1085.15	-755.85
V83	220092	001207	51.00	1767.00	2594.00	1666.00	1181.90	-484.10
V83	220173	001388	55.00	854.00	2274.00	1182.00	872.77	-309.23
V83	220183	001417	55.00	1111.00	3032.00	1693.00	1067.57	-625.43
V83	220189	001443	48.00	1191.00	2527.00	1486.00	1007.31	-478.69
V83	220190	001445	72.00	1037.00	2343.00	1840.00	940.60	-899.40
V83	220197	001466	52.00	866.00	2546.00	1235.00	838.77	-396.23
V83	220200	001491	59.00	951.00	1836.00	1339.00	846.76	-492.24
V83	220205	001524	53.00	884.00	2654.00	1405.00	941.98	-463.02
V83	220206	001521	37.00	864.00	1585.00	1179.00	760.52	-418.48
V83	220295	000827	65.00	1897.00	2809.00	1639.00	1256.56	-382.44
V83	220314	001806	61.00	852.00	2523.00	1588.00	913.68	-685.32
V83	220317	001877	81.00	2046.00	3267.00	2135.00	1376.19	-758.81
V83	220373	001911	87.00	981.00	1475.00	1331.00	787.52	-543.48
V83	320007	100032	116.00	2791.00	3540.00	2485.00	1687.50	-797.50
V83	320014	100049	106.00	2104.00	3012.00	1793.00	1357.35	-435.65
V83	320017	100052	97.00	1856.00	3364.00	1876.00	1341.70	-532.30
V83	320034	100257	123.00	2508.00	2275.00	1804.00	1357.04	-446.96
V83	320039	100198	93.00	1120.00	2594.00	1732.00	1009.79	-722.21
V83	320045	100147	98.00	3483.00	3591.00	1984.00	1839.21	-144.79
V83	320055	100193	132.00	1548.00	2285.00	1738.00	1085.67	-652.33
V83	320091	100200	83.00	1458.00	3355.00	1739.00	1224.59	-514.41
V83	320095	100201	102.00	1592.00	3428.00	2504.00	1274.40	-1229.60
V83	320097	100148	116.00	2637.00	2785.00	1282.00	1474.21	192.21
V83	320101	100244	81.00	1058.00	2442.00	1883.00	963.60	-919.40
V83	320108	100245	80.00	1008.00	1644.00	1391.00	820.75	-570.25
V83	320130	100106	103.00	2894.00	3427.00	1954.00	1647.17	-306.83
V83	320131	100107	102.00	2697.00	3767.00	1671.00	1645.89	-25.11
V83	320132	100108	112.00	1203.00	3069.00	1794.00	1257.65	-536.35
V83	320277	100464	88.00	2610.00	3602.00	2490.00	1591.45	-898.55
V83	420034	000012	64.00	2403.00	1436.00	1352.00	1178.60	-173.40

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V83	420064	000066	52.00	1817.00	2867.00	1354.00	1240.24	-113.76
V8	420103	000104	98.00	2128.00	2922.00	1771.00	1347.80	-423.20
V8	420106	000107	105.00	3125.00	1628.00	2051.00	1423.44	-627.56
V83	420152	000152	89.00	2485.00	1747.00	2086.00	1289.86	-796.14
V83	420162	000162	73.00	3075.00	3326.00	1873.00	1675.23	-197.77
V83	420164	000164	92.00	3350.00	2862.00	1711.00	1682.80	-28.20
V83	420166	000166	64.00	3006.00	2262.00	1703.00	1482.32	-220.68
V83	420172	000172	67.00	1129.00	1555.00	783.00	837.68	54.68
V83	420180	000180	65.00	2416.00	2356.00	1137.00	1330.61	193.61
V83	420184	000184	68.00	2300.00	2779.00	1600.00	1366.55	-233.45
V83	420193	000193	91.00	2256.00	2106.00	1496.00	1251.07	-244.93
V83	420197	000197	93.00	2042.00	3419.00	1613.00	1402.30	-210.70
V83	420199	000199	83.00	2462.00	2900.00	1154.00	1435.37	281.37
V83	420203	000203	90.00	1974.00	2868.00	1584.00	1293.65	-290.35
V83	420466	000614	58.00	3671.00	1263.00	2256.00	1509.84	-746.16
V83	520011	100007	91.00	2198.00	2519.00	1438.00	1301.13	-136.87
V83	520040	100169	107.00	2704.00	2356.00	2393.00	1518.47	-874.53
V83	520042	100189	111.00	2014.00	2016.00	2178.00	1172.68	-1005.32
V83	520043	100170	169.00	2290.00	1625.00	2130.00	1040.34	-1089.66
V83	520045	100024	113.00	2737.00	629.00	1837.00	1154.60	-682.40
V83	520046	100421	84.00	2110.00	2214.00	1576.00	1228.04	-347.96
V83	520047	100060	86.00	2498.00	3176.00	1412.00	1490.69	78.69
V83	520048	100147	118.00	2541.00	3576.00	2032.00	1574.67	-457.33
V83	520049	100205	116.00	3907.00	1462.00	2806.00	1620.71	-1185.29
V83	520053	100023	100.00	2580.00	2245.00	1550.00	1367.28	-182.72
V83	520062	100138	94.00	2279.00	2975.00	1692.00	1398.17	-293.83
V83	520077	100402	114.00	4074.00	1543.00	2568.00	1680.58	-887.42
V83	520084	100276	78.00	3523.00	3645.00	2326.00	1854.60	-471.40
V83	520088	100034	108.00	3880.00	863.00	2160.00	1514.79	-645.21
V83	520191	100259	123.00	1879.00	1755.00	1796.00	1095.21	-700.79
V83	520319	100617	87.00	1934.00	688.00	1549.00	930.69	-618.31
V83	520330	100627	124.00	2262.00	2602.00	1605.00	1340.25	-264.75
V83	620011	000003	94.00	2506.00	2434.00	1231.00	1375.36	144.36
V83	620015	000110	101.00	1733.00	2643.00	1719.00	1191.73	-527.27
V83	620021	000021	109.00	2886.00	2824.00	1539.00	1549.22	10.22
V83	620031	000023	75.00	3636.00	2874.00	1635.00	1761.79	126.79
V83	620175	000115	82.00	1806.00	3259.00	1654.00	1307.17	-346.83
V83	620177	000042	102.00	1530.00	2747.00	1707.00	1151.22	-555.78
V83	620181	000313	42.00	1328.00	1589.00	1698.00	893.72	-804.28
V83	620182	000029	97.00	1451.00	3589.00	2106.00	1263.24	-842.76
V83	620185	000143	95.00	2090.00	2178.00	1773.00	1216.58	-556.42
V83	620187	000159	81.00	1251.00	1985.00	1165.00	944.69	-220.31
V83	620188	000177	69.00	416.00	2189.00	1667.00	738.30	-928.70
V83	620190	000265	76.00	1442.00	2371.00	1467.00	1059.75	-407.25
V83	620193	000154	108.00	2122.00	1344.00	1558.00	1094.39	-463.61
V83	620205	000158	95.00	1519.00	3606.00	1334.00	1284.77	-49.23
V83	620413	000325	84.00	3010.00	2059.00	2056.00	1455.40	-600.60
V83	620422	000295	85.00	2364.00	1921.00	1881.00	1250.49	-630.51
V83	620436	000337	58.00	3446.00	2204.00	1844.00	1596.19	-247.81
V83	620445	000348	72.00	1569.00	4006.00	1795.00	1358.00	-437.00

NITROGEN OXIDE

MFG	CAR NO	RUN NO	KEYMODE VALUE IDLE	KEYMODE VALUE LOW	KEYMODE VALUE HIGH	COMPOSITE VALUES OBSERVED	COMPOSITE VALUES CALC	COMPOSITE VALUES DIFF
V84	320063	100165	109.00	482.00	699.00	776.00	526.38	-249.62